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CONTENTS

The Horizontal Mill in Ireland—by A. T. Lucas			AGE I
Rathmacknee Castle, Co. Wexford—by H. G. Leask	•••		37
Bronze Age Burials, Co. Wexford—by P. J. Hartnett and E. l	Prenderga	ıst	46
The Siege of Athlone—by Diarmuid Murtagh		•••	58
Na hÁit-Ainmneacha, $Uggool,\ Uggoon-$ T. S. Ó Máille, do scr	riobh		82
The Tinsley Portrait Sketches of the William Smith O'Brief J. D. Forbes		by 	86
Lough Gara: A Preliminary Survey—by R. E. Cross	•••		93
St. Brigid and Glastonbury—by J. L. Robinson			97
Powerscourt and the Territory of Fercullen—by Liam Price	•••	•••	117
Some More 18th Century Wall-Paintings in Ireland : Peter de by A. K. Longfield	Gree, etc.	_	133
14th Century Monastic Estates in Meath—by E. St. John B	rooks		140
Some Hitherto Unpublished Pictures of 16th Century Irish H. F. McClintock	People—	by 	150
Richard Boyle, Ironmaster—by H. F. Kearney			156
Fisheries of the River Liffey—by A. E. J. Went		•••	163
Neolithic Habitation Site, Stone Circles and Alignments at Co. Tyrone—by A. McL. May	Beaghmo 	re,	174
MISCELLANEA			•
Block-Wheel Car from Slievenamon—(A. T. Lucas)		•••	100
What was a "Cloghinkelly?"—(D. Gleeson)	•••	•••	100
Late Bronze Age Hoard from Garden Hill—(P. J. Hartne	ett)	•••	101
Who Were The Gamanrad?—(M. E. Dobbs)		•••	103
The Saint Johnstown Head—(O. Davies)	•••	•••	198
The Tomb of Archbishop Edmund Butler at Cashel—(J. I	Hunt)	•••	199
Bodenstown, Co. Kildare—(Liam Price)			200
NOTICES OF BOOKS			
Notices of Books	•••	107,	204
Proceedings	•••	109,	207
Report of the Council for 1952	***		110
Statement of Accounts for 1952			115
Obituary—Robert Lloyd Praeger			202

EDITORIAL

The present volume of the Journal contains articles covering a wide variety of subjects. There is, for instance, Mr. A. McL. May's report on the curious and interesting series of Stone Circles, Alignments and Neolithic Habitation sites at Beaghmore; to which is appended the results of Mr. G. F. Mitchell's botanical investigations at the same site. Then there is Mr. Lucas's interesting account of the Horizontal Mill in Ireland, a most important contribution to the study of what is usually regarded as the "Viking Mill"; Dr. Leask's account of Rathmacknee Castle; Dr. St. John Brooks's study of 14th Century Monastic Estates in Meath; Mr. Price's history of Powerscourt and the Territory of Fercullen; Dr. Went's account of the Fisheries of the River Liffey; Mrs. Leask's study of de Gree's Wall-Paintings; to mention a few of the wide range of subjects dealt with. The main point for the ordinary reader is that these accounts give some idea of what is being done by some of our members in the matter of historical and pre-historical research. A great deal remains to be done, and workers are few. The Society wishes to give as much support as possible to these research-workers, and to publish the results of their labours in the pages of its Journal. But the cost of producing the Journal is high, and to meet this cost, the Society has to depend entirely upon the subscriptions of its members.



LIST OF ILLUSTRATIONS

PLATES

I.—(Above) Horizontal Mill from Scandinavia (Below) Milliwheel from Moyeraig Co. Antrim		Facing	1	Facing
Mill from Scandinavia. (Below) Mill- wheel from Moycraig, Co. Antrim 1 II.—Morett Mill: (1) View from end of dam. (2) View from end of Wheelhouse 16 III.—Morett Mill: (1) Dam. (2) Beam 3, showing ends of Dam and Trough 17 IV.—Morett Mill: (1) End Mortice in Dam Beam. (2) East Side of Wheelhouse 18 V.—Morett Mill: (1) Beam 3, showing recess to hold end of Trough. (2) Mortice in Dam Beam 18 V.—Morett Mill: (1) Beam 3, showing recess to hold end of Trough. (2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. (right) The Foodvessel, dama Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. (2) The F		page		pagc
avia. (Below) Mill- wheel from Moyeraig, Co. Antrim 1 II.—Morett Mill: (1) View from end of dam. (2) View from end of Wheelhouse 16 III.—Morett Mill: (1) Dam. (2) Beam 3, showing ends of Dam and Trough 17 IV.—Morett Mill: (1) End Mortice in Dam Beam. (2) East Side of Wheelhouse 18 V.—Morett Mill: (1) Beam 3, showing recess to hold end of Trough. (2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. Below (left): Cist, looking west, show- ing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wex- ford. Above: (1) Section of Foodvessel. Below: (2) The Food vessel. (2) The Food- vessel. (2) The Food- vessel. Below: (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 III.—The Courtroom: General view 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Moore (187?- 1854) least of the four co-defendants. (right) John Doherty (1783–1857) one of the Common Pleas. (right) James Henry Moore (1783–1857) one of the Qudges. (right) James Henry Mo n a ha n 1804 IS78) Attorney- General of Ireland. XI.—Above: (left) John Hatchell (1783-1870) Solicitor-General of Ireland. (right) James Whiteside (1804–1876) Chief Counsel for the Defence of William Smith O'Brien 89 XII.—Above: (left) James Whiteside. (right) Isaac Butt (1813– 1879) Defence At- tormefor the Defendants of O'Brien 89 XII.—Above: (left) Richard Moore (1783–1870) one of the Zudges. (right) James Henry M on a ha n 1804 (1804–1876) Chief Counsel for the Defence of William Smith O'Brien Richard (1804–1876) Chief Counsel for the Defence of William Smith O'Brien Richard (1804–1876) Chief Counsel for the Defence of William Smith O'Brien Richard (1804–1876) Chief Counsel for the Defence of William Smith O'Brien Richard (1	I.—(Above) Horizontal		(1823–1860) number	
avia. (Below) Mill- wheelfrom Moyeraig, Co. Antrim 1 II.—Morett Mill: (1) View from end of dam. (2) View from end of Wheelhouse 16 III.—Morett Mill: (1) Dam. (2) Beam 3, showing ends of Dam and Trough 17 IV.—Morett Mill: (1) End Mortice in Dam Beam. (2) East Side of Wheelhouse 18 V.—Morett Mill: (1) Beam 3, showing recess to hold end of Trough. (2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. Below (left): Cist, looking west, show- ing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. Below (left): Cist, looking west, show- ing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. Soliciton-General of Ireland. (right) James Whiteside (1804-1876) Chief Counsel for the Defence of William Smith O'Brien 89 XII.—Above: (left) James Whiteside. (right) Isaac Butt (1813- 1879) Defence Attorney- General of Ireland SX.—Above: (left) Grief Loier Common Pleas. (right) James Henry Moore (1783-1857) one of the Common Pleas. (right) James Henry Mo na ha na 1804 Is78) Attorney- General of reland SXI.—Above: (left) John Hatchell (1783-1870) Solicitor-General of Ireland. (right) James Whiteside (1804-1876) Chief Counsel for the Defence of William Smith O'Brien 89 XII.—Above: (left) James Whiteside. (right) Isaac Butt (1813- 1879) Defence Attorney- General of Ireland SXI.—Above: (left) John Hatchell (1783-1870) Solicitor-General of Ireland. (right) James Whiteside (1804-1876) Chief Counsel for the Defence of William Smith O'Brien Isaac Butt (1813- 1879) Defence Attorney- General of Ireland SXI.—Above: (left) James Whiteside (1804-1876) Chief Counsel for the Defence of William Smith O'Brien Three Co-Defendants of O'Brien Isaac Butt (1813- 1859) Baron of the Count of Exchequer, he sat as Adviser to	Mill from Scandin-		three among the	
wheel from Moyeraig, Co. Antrim II.—Morett Mill: (1) View from end of dam. (2) View from end of Wheelhouse III.—Morett Mill: (1) Dam. (2) Beam 3, showing ends of Dam and Trough Trough IV.—Morett Mill: (1) End Mortice in Dam Beam. (2) East Side of Wheelhouse Is V.—Morett Mill: (1) End Mortice in Dam Beam. (2) East Side of Wheelhouse Is V.—Morett Mill: (1) Beam 3, showing recess to hold end of Trough. (2) Mortice in Dam Beam Beam In It VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. Below (left): Cist, looking west, showing position of Skull and Body. (right) Base of Foodvessel showing Star Pattern In It View III.—Morett Mill: (1) Dam. Send VII.—Bronze Age Burial, Annagh More, Co. Wexford. Above: (1) Section of Foodvessel showing Star Pattern In It View III.—Morett Mill: (1) View III.—Morett Mill: (1) Dam. III.—Moret Mill: (1) Dam. III.—Moret Mill: (1) Dam. III.—Above: (left) John III.—Above: (left) James Whiteside III.—It view In It	avia, (Below) Mill-		defendants	87
Co. Antrim II.—Morett Mill: (1) View from end of dam. (2) View from end of Wheelhouse			X.—Above : (left) Patrick	
III.—Morett Mill: (1) View from end of dam. (2) View from end of Wheelhouse 16 III.—Morett Mill: (1) Dam. (2) Beam 3, showing ends of Dam and Trough 17 IV.—Morett Mill: (1) End Mortice in Dam Beam. (2) East Side of Wheelhouse 18 V.—Morett Mill: (1) Beam 3, showing recess to hold end of Trough. (2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annaph More, Co. Wexford. Above (left): Section of Foodvessel. Below (left): Cist, looking west, showing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Above (left) James Whiteside (1804–1876) Chief Counsel for the Defence of William Smith O'Brien Light (1783–1879) Defence Attorney for the Three Co-Defendants of O'Brien 89 VII.—Above: (left) James Whiteside (1818–1879) Defence Attorney for the Three Co-Defendants of O'Brien 89 VII.—Bronze Age Burial, Above (left) James Whiteside (1818–1879) Defence Attorney for the Three Co-Defendants of O'Brien 89 VII.—Bronze Age Burial, Above: (left) James Whiteside (1818–1879) Defence Attorney for the Three Co-Defendants of O'Brien 89 VII.—Bronze Age Burial, Adviser to the Commission in the O'Brien Trials. (right) Richard Pennefather, 177. High Sheriff of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness of William Smith O'Brien (1808–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867)		1		
from end of dam. (2) View from end of Wheelhouse 16 III.—Morett Mill: (1) Dam. (2) Beam 3, showing ends of Dam and Trough 17 IV.—Morett Mill: (1) End Mortice in Dam Beam. (2) East Side of Wheelhouse 18 V.—Morett Mill: (1) Beam Beam. (2) East Side of Wheelhouse 18 V.—Morett Mill: (1) Beam Beam. (2) East Side of Wheelhouse 19 V.—Morett Mill: (1) Beam Beam (2) East Side of Wheelhouse 19 V.—Morett Mill: (1) Beam Beam (2) East Side of Wheelhouse 19 V.—Morett Mill: (1) Beam Beam (2) East Side of Wheelhouse 19 V.—Morett Mill: (1) Beam Beam (1) Beam (1) Beam (2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. (right) The Foodvessel. Below (left): Cist, looking west, showing Star Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above : (1) Section of Foodvessel showing Star Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above : (1) Section of Foodvessel. (2) The Foodvessel showing Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 III.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867)	II _Morett Mill: (1) View	-		
(2) View from end of Wheelhouse 16 III.—Morett Mill: (1) Dam. (2) Beam 3, showing ends of Dam and Trough 17 IV.—Morett Mill: (1) End Mortice in Dam Beam. (2) East Side of Wheelhouse 18 V.—Morett Mill: (1) Beam 3, showing recess to hold end of Trough. (2) Mortice in Dam Beam. (2) East Side of Wheelhouse 18 V.—Morett Mill: (1) Beam 3, showing recess to hold end of Trough. (2) Mortice in Dam Beam 19 V.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. Below (left): Cist, looking west, showing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Annad Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Annad Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Annad Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Annad Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Annad Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Annad Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Annad Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Annad Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Annad Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Annagh More, Co. Wexford Above: (left) James Whiteside (ls04-lj.) James Whiteside (ls04-lj.) James Whiteside (ls04-lj.) James Whiteside (right) James Whiteside (right) Base of Foodvessel showing in the Ballyduff, Co. Wexford Above: (left) James Whiteside (right) Base of Foodvessel showing in the Ballyduff, Co. Wexford Above: (left) James Whiteside (right) Base of Foodvessel showing in the Ballyduff, Co. Wexford Above: (left) James Whiteside (right) Base Below: (left) James Whiteside (ls04-lj.) Annad Ballyduff	from and of dam			
Wheelhouse 16 III.—Morett Mill: (1) Dam. (2) Beam 3, showing ends of Dam and Trough 17 IV.—Morett Mill: (1) End Mortice in Dam Beam. (2) East Side of Wheelhouse 18 V.—Morett Mill: (1) Beam 3, showing recess to hold end of Trough. (2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. Below (left): Cist, looking west, showing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above (1) Section of Foodvessel. Below (2) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867)				
III.—Morett Mill: (1) Dam. (2) Beam 3, showing ends of Dam and Trough 17 IV.—Morett Mill: (1) End Mortice in Dam Beam. (2) East Side of Wheelhouse 18 V.—Morett Mill: (1) Beam 3, showing recess to hold end of Trough. (2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. Below (left): Cist, looking west, showing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. Below: (1) Section of Foodvessel. Below: (1) Section of Foodvessel. (1) Section of Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides		16		
(2) Beam 3, showing ends of Dam and Trough		10		
ends of Dam and Trough 17 IV.—Morett Mill: (1) End Mortice in Dam Beam. (2) East Side of Wheelhouse 18 V.—Morett Mill: (1) Beam 3, showing recess to hold end of Trough. (2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. (right) Base of Foodvessel showing "Star" Pattern	III.—Morett Mill: (1) Dam.			
Trough IV.—Morett Mill: (1) End Mortice in Dam Beam. (2) East Side of Wheelhouse 18 V.—Morett Mill: (1) Beam 3, showing recess to hold end of Trough. (2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. Below (left): Cist, looking west, showing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (lf) Section of Foodvessel showing of Fine Showing and Body. (right) Base of Foodvessel showing before a showing and Body. (right) Base of Foodvessel showing before a showing and Body. (right) Base of Foodvessel showing and Body. (right) Base of Foodvessel showing star" Pattern				
IV.—Morett Mill: (1) End Mortice in Dam Beam. (2) East Side of Wheelhouse 18 V.—Morett Mill: (1) Beam 3, showing recess to hold end of Trough. (2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. (right) The Foodvessel. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. (1) Section of Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VIII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803—1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) Solicitor-General of Ireland 88 XI.—Above: (left) John Hatchell (1783-1879) Solicitor-General of Ireland. (right) James Whiteside (1804–1876) Chief Counsel for the Defence of William Smith O'Brien. Smith O			Below: (left) Richard	
Mortice in Dam Beam. (2) East Side of Wheelhouse 18 V.—Morett Mill: (1) Beam 3, showing recess to hold end of Trough. (2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. Below (left): Cist, looking west, showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel showing and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VIII.—The Courtroom: General View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VIII.—The Courtroom: General View 86 IXI.—Above: (left) John Hatchell (1783-1870) Solicitor-General of I reland. (1804-1876) Chief Counsel for the Defenedant and Smith O'Brien.	Trough	17	Moore (1783–1857)	
Mortice in Dam Beam. (2) East Side of Wheelhouse 18 V.—Morett Mill: (1) Beam 3, showing recess to hold end of Trough. (2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. Below (left): Cist, looking west, showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel showing and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VIII.—The Courtroom: General View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VIII.—The Courtroom: General View 86 IXI.—Above: (left) John Hatchell (1783-1870) Solicitor-General of I reland. (1804-1876) Chief Counsel for the Defenedant and Smith O'Brien.	IV.—Morett Mill: (1) End		one of the Judges.	
of Wheelhouse V.—Morett Mill: (1) Beam 3, showing recess to hold end of Trough. (2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. Gelow (left): Cist, looking west, showing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. Below: (1) Section of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 TII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803-1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823-1867)	Mortice in Dam		(right) James Henry	
V.—Morett Mill: (1) Beam 3, showing recess to hold end of Trough. (2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. Below (left): Cist, looking west, showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. Below: (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VII.—The Courtroom: General of Ireland XI.—Above: (left) John Interval Inte	Beam. (2) East Side		Monahan (1804-	
3, showing recess to hold end of Trough. (2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. Below (left): Cist, looking west, showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 TII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien Itelastics (right) Shabens for William Smith O'Brien Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90		18	1878) Attorney-	
3, showing recess to hold end of Trough. (2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. Below (left): Cist, looking west, showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 TII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien Itelastics (right) Shabens for William Smith O'Brien Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90	V.—Morett Mill: (1) Beam		General of Ireland	88
hold end of Trough. (2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. Below (left): Cist, looking west, showing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. (2) The	3. showing recess to			
(2) Mortice in Dam Beam 19 VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. Below (left): Cist, looking west, showing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 TII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) Solicitor-General of Ireland. (right) James Whiteside (1804–1876) Chief Counsel for the Decunsel for the Decunsel for the Defence of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) James Bolow: (left) James Bolow: (left) James Meyer (left) James Morting to the Court of Exchequer, he sat as Adviser to the Commission in the O'Brien Trials (right) Richard Pennefather, Jr., High Sheriff of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness for the Prosecution. (right) Sub-Inspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90				
Note of the Court of Exchequer, he sat as Adviser to the Court of Exchequer, he sat as Adviser to the Court of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VII.—The Courtroom: General View St.—Above: Two Studies of William Smith O'Brien in the Battle of the Widow Meagher (1803–1864) the Principal Defendants of Wilcomas Francis Meagher (1823–1867) Possible and Life of the Defence of William Smith O'Brien. Smith O'Brien. Below: (left) James Whiteside. (right) Smith O'Brien. Below: (left) James Whiteside (right) Smith O'Brien Asmith Smith O'Brien Smith O'Brien Asmith Smith O'Brien Trials. (right) Richard Pennefather (1773–1859) Baron of the Court of Exchequer, he sat as Adviser to the Commission in the O'Brien Trials. (right) Richard Pennefather, Jr., High Sheriff of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness for the Prosecution. (right) Sub-Inspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90				
VI.—Bronze Age Burial, Annagh More, Co. Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. Below (left): Cist, looking west, showing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. (2) The Foodvessel. (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VIII.—The Courtroom: General View 50 VIII.—The Courtroom: Gene	D'	19		
Annagh More, Co. Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. Below (left): Cist, looking west, showing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. Below: (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VIII.—The Courtroom: General View S6 IX.—Above: Two Studies of William Smith O'Brien In the Battle of the Widow Meagher (1823–1867) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VIII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867)		10		
Wexford. Above (left): Section of Foodvessel. (right) The Foodvessel. Below (left): Cist, looking west, showing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 TII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien. Below: (left) James Whiteside. (right) Isaac Butt (1813– 1879) Defence Attorney for the Three Co-Defendants of O'Brien 89 XII.—Above: (left) Richard Pennefather (1773– 1859) Baron of the Court of Exchequer, he sat as Adviser to the Commission in the O'Brien Trials. (right) Richard Pennefather, Jr., High Sheriff of Co. Tipperary. Below: (left) James Whiteside. (right) Isaac Butt (1813– 1879) Defence Attorney for the Three Co-Defendants of O'Brien 89 XII.—Above: (left) Richard Pennefather (1773– 1859) Baron of the Court of Exchequer, he sat as Adviser to the Commission in the O'Brien Trials. (right) Richard Pennefather, Jr., High Sheriff of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness for the Prosecution. (right) Sub-Inspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90				
(left): Section of Foodvessel. (right) The Foodvessel. Below (left): Cist, looking west, showing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VIII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) James Milliam Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867)				
Foodvessel. (right) The Foodvessel. Below (left): Cist, looking west, showing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern			Counsel for the De-	
The Foodvessel. Below (left): Cist, looking west, show- ing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wex- ford. Above: (1) Section of Food- vessel. (2) The Food- vessel. Below: (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VIII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendants of O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90			ience of william	
Below (left): Cist, looking west, showing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VIII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendants Pinch of William Smith O'Brien (1803–1864) the Principal Defendants Pinch of William Smith O'Brien (1823–1867) Myhiteside. (right) Isaac Butt (1813–1879) Defence Attorney for the Three Co-Defendants of O'Brien at Attorney for the Three Co-Defendants of O'Brien 89 XII.—Above: (left) Richard Pennefather (1773–1859) Baron of the Court of Exchequer, he sat as Adviser to the O'Brien Trials. (right) Richard Pennefather, Jr., High Sheriff of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness for the Prosecution. (right) Sub-Inspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90				
looking west, showing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. (2) The Foodvessel. (2) The Foodvessel. Below: (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendants of O'Brien 89 XII.—Above: (left) Richard Pennefather (1773–1859) Baron of the Court of Exchequer, he sat as Adviser to the Commission in the O'Brien Trials. (right) Richard Pennefather, Jr., High Sheriff of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness for the Prosecution. (right) Sub-Inspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90				
ing position of Skull and Body. (right) Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. (2) The Foodvessel. (2) The Foodvessel. Below: (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendants of O'Brien 89 XII.—Above: (left) Richard Pennefather (1773–1859) Baron of the Court of Exchequer, he sat as Adviser to the Commission in the O'Brien Trials. (right) Richard Pennefather, Jr., High Sheriff of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness for the Prosecution. (right) Sub-Inspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90				
and Body. (right) Base of Foodvessel showing "Star" Pattern	looking west, show-			
Base of Foodvessel showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. (2) The Foodvessel. (2) The Foodvessel. Below: (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VIII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendants of O'Brien (1803–1864) the Principal Defendants of O'Brien (1823–1867) Co-Defendants of O'Brien 89 XII.—Above: (left) Richard Pennefather (1773–1859) Baron of the Court of Exchequer, he sat as Adviser to the Commission in the Commission in the O'Brien Trials. (right) Richard Pennefather, Jr., High Sheriff of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness for the Prosecution. (right) Sub-Inspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90	ing position of Skull			
showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. (2) The Foodvessel. (2) The Foodvessel. Below: (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VIII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) O'Brien 89 XII.—Above: (left) Richard Pennefather (1773–1859) Baron of the Court of Exchequer, he sat as Adviser to the Commission in the O'Brien Trials. (right) Richard Pennefather, Jr., High Sheriff of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness for the Prosecution. (right) Sub-ecution. (right) Sub-sub-day attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90	and Body. (right)			
showing "Star" Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. (2) The Foodvessel. (2) The Foodvessel. Below: (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VIII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) O'Brien 89 XII.—Above: (left) Richard Pennefather (1773–1859) Baron of the Court of Exchequer, he sat as Adviser to the Commission in the O'Brien Trials. (right) Richard Pennefather, Jr., High Sheriff of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness for the Prosecution. (right) Sub-ecution. (right) Sub-sub-day attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90	Base of Foodvessel			
Pattern 46 VII.—Bronze Age Burial, Ballyduff, Co. Wex- ford. Above: (1) Section of Food- vessel. (2) The Food- vessel. Below: (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 IX.—Above: (left) Richard Pennefather (1773- 1859) Baron of the Court of Exchequer, he sat as Adviser to the Commission in the O'Brien Trials. (right) Richard Pennefather, Jr., High Sheriff of Co. Tipperary. Below: (left) James Steven- son Dobbyn, the Informer, Key Wit- ness for the Pros- ecution. (right) Sub- Inspector Thomas Trant, Leader of the Detachment of Con- stabulary attacked by O'Brien in the Battle of the Widow McCormack's Cab- bage Garden 90	showing "Star"		O'Brien	89
VII.—Bronze Age Burial, Ballyduff, Co. Wex- ford. Above: (1) Section of Food- vessel. (2) The Food- vessel. Below: (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VIII.—The Courtroom: General View of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) Pennefather (1773– 1859) Baron of the Court of Exchequer, he sat as Adviser to the Commission in the O'Brien Trials. (right) Richard Pennefather, Jr. High Sheriff of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness for the Prosecution. (right) Sub- Inspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cab- bage Garden 90	Pattern	46	XII.—Above : (left) Richard	
Ballyduff, Co. Wexford. Above: (1) Section of Foodvessel. (2) The Foodvessel. (2) The Foodvessel. Below: (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 VIII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) 1859) Baron of the Court of Exchequer, he sat as Adviser to the O'Brien Trials. (right) Richard of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Withenselve and Stevenson Dobbyn, the	VII.—Bronze Age Burial,			
ford. Above: (1) Section of Food- vessel. (2) The Food- vessel. Below: (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) Court of Exchequer, he sat as Adviser to the Commission in the Commission			1859) Baron of the	
Section of Foodvessel. (2) The Foodvessel. (2) The Foodvessel. (2) The Foodvessel. Below: (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 III.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) he sat as Adviser to the Commission in the Commission in the Commission in the O'Brien Trials. (right) Richard Pennefather, Jr., High Sheriff of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness for the Prosecution. (right) Sub-ecution. (right)			Court of Exchequer,	
vessel. (2) The Foodvessel. Below: (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 7III.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) the Commission in the Commission in the Commission in the Commission in the O'Brien Trials. (right) Richard Pennefather, Jr., High Sheriff of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness for the Prosecution. (right) Sub-Inspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90			he sat as Adviser to	
vessel. Below: (3) Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 /III.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) the O'Brien Trials. (right) Richard Pennefather, Jr., High Sheriff of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness for the Prosecution. (right) Sub-Inspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cab- bage Garden 90	vessel. (2) The Food-		the Commission in	
Side and End View of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 YIII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) (right) Richard Pennefather, Jr., High Sheriff of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness for the Prosecution. (right) Sub-Inspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90				
of Faience Bead. (4) Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 III.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) Pennefather, Jr., High Sheriff of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness for the Prosecution. (right) Sub- ecution. (right) Sub- Inspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cab- bage Garden 90				
Cist with Capstone removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 TIII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) High Sheriff of Co. Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness for the Prosecution. (right) Sub-Inspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90				
removed to show Soil and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 III.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) Tipperary. Below: (left) James Stevenson Dobbyn, the Informer, Key Witness on Dobbyn, the Informer, Key Witness on Dobbyn, the Informer, Key Witness on Dobbyn, the Informer, Key Witness for the Prosecution. (right) Sub-Inspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90				
and Bone filling, looking east. (5) Cist cleared to show Floor and sides 50 III.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) (left) James Stevenson Dobbyn, the Informer, Key Witness for the Prosecution. (right) Subscution. (right) Sub				
looking east. (5) Cist cleared to show Floor and sides 50 III.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) son Dobbyn, the Informer, Key Witness ness for the Prosecution. (right) Sub- ecution. (right) Sub- linspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cab- bage Garden 90				
cleared to show Floor and sides 50 Informer, Key Witness for the Prosecution. (right) Sub- eral View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) Informer, Key Witness for the Prosecution. (right) Sub- linspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cab- bage Garden 90				
and sides 50 III.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) The Courtroom: 50 Secution. (right) Sub-Inspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90			Informer Keyr Wit	
TII.—The Courtroom: General View 86 IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) O'Brien (1823–1867) Ecution. (right) Sub-Inspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90		50	near for the Pres	
eral View 86 INspector Thomas IX.—Above: Two Studies of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) Inspector Thomas Trant, Leader of the Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90		30		
IX.—Above: Two Studies of William Smith Ottachment of Con- O'Brien (1803–1864) stabulary attacked by O'Brien in the dant. Below: (left) Thomas Francis Meagher (1823–1867) Meagher (1823–1867) Trant, Leader of the Detachment of Con- stabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90		0.0		
of William Smith O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) Detachment of Constabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90		80		
O'Brien (1803–1864) the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) Stabulary attacked by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90				
the Principal Defendant. Below: (left) Thomas Francis Meagher (1823–1867) by O'Brien in the Battle of the Widow McCormack's Cabbage Garden 90				
dant. Below: (left) Thomas Francis Meagher (1823–1867) Battle of the Widow McCormack's Cabbage Garden 90				
Thomas Francis McCormack's Cab- Meagher (1823–1867) bage Garden 90				
Meagher (1823–1867) bage Garden 90				
TTTT				0.0
(right) Terence XIII.—Above: (left) John Bellew McManus Gore Jones, Resident				90
Bellew McManus Gore Jones, Resident	(right) Terence			
	Bellew McManus		Gore Jones, Resident	

	Facing	I	acing
M	page		page
Magistrate o Thurles. (right) Sub		XXV.—Mount Congreve House,	
Inspector Joseph		Co. Waterford.	
Cox, Officer of the		Dining room, Artist unknown. Early	
Constabulary. Below		70.7 0	139
Two Studies of Henry			199
Pedder, Clerk of the		XXVI.—14 Parnell Square,	
Crown at the Tria		Dublin. Coloured	
XIV.—(left) John George		Lunettes of Mercury, Venus and Diana,	
Hodges, the "Govern	-	by Jacob Ennis.	
ment short-hand	l į	About 1760	139
writer." (right		XXVII.—From the Recueil	100
Sir Lucius O'Brien		Herbier: (1) Cos-	
Bart., elder brother		tume of the Men.	
of William Smith		(2) Irish Men armed	
O'Brien, and later 13th Baron Inchi-		in War.	152
	92	XXVIII.—From the Recueil	10-
		Herbier: Irishmen	
XV.—Lough Gara : (above) Typical "small"	,	armed in War	153
type of Crannog.		XXIX.—From the Recueil	100
(below) "Large"	١	Herbier: (1) Irish	
type of Crannog	94	Musician. (2) Irish	
XVI.—Block-wheel car from		Woman	154
Slievenamon	100	XXX.—Beaghmore: The Site	
XVII.—Bronze Age Hoard		before excavation	174
from Garden Hill		XXXI.—Groups I and 2. Circles	
XVIII.—Mount Kennedy House		A and B (right) C	
Co. Wicklow. Wall		and D (left) with	
Paintings by de Gree, c. 1785. (left)		their cairns and	
"Earth". (right)		alignments	176
" Diana"	104	XXXII.—Avenue, Forecourt,	
XIX.—Two of de Gree's		Cairn C1, flanking	
Medallions on Ceil-		Alignments, and the	
ing at Curraghmore,		two Sentinel-Stones	
Co. Waterford, c.		in line with Entrance	177
1785–88	135	XXXIII.—(1) Hearth No. 1, with	
XX.—"Hibernia" Panel by		flat stone at right.	
de Gree. Signed and		(2) Part of Circle C	
dated 1788. Now in		erected on bank of	
Luttrellstown Castle, Co. Dublin	136	pebbles	180
XXI.—(1) One of de Gree's		XXXIV.—(1) Passage between	
small panels at		Circles C and D	
Luttrellstown Castle,		leading to Cairn C2.	
1788. (2) Painting		(2) Cairn C4 with	
by de Gree in Royal		chamber in which	
Dublin Society, c.	-	oak stem was em- bedded	181
1787–88	137	XXXV.—Cairn C5 at end of	101
XXII.—Mount Kennedy House,		three-stoned Align-	
Co. Wicklow. Painted		ment of Circle E	184
Roundels by de	190	XXXVI.—Beaghmore: (1) Cairn	
Gree, c. 1785–88 XXIII.—Mount Kennedy House,	138	C6 on edge of Circle	
Co. Wicklow. Draw-		E. Behind it a large	
ing room fireplace.		Orthostat of Align-	
Roundel by de Gree,		ment L7. (2) Thickly	
c. 1785-88	139	stone-studded sur-	
XXIV.—Seafield Hall, Dona-		face of Circle E	185
bate. Painted Panels		XXXVII.—Tomb of Archbishop	
of Gods. Artist		Butler (c. 1553) E.	
unknown. Early	100	side, north Transept,	160
18th Century	139	Cashel Cathedral	198

TEXT FIGURES

	PAGE		PAGE
Horizontal Mill, Killogrone, Co.		Rathmacknee Castle: Elevations	
Kerry. Plan	10	of Tower	44
Horizontal Mill, Killogrone, Co.		Cist Grave at Annagh More,	
Kerry. Elevation	13	Co. Wexford	47
Pivot-stone from Ballyshannon,	. ~	Cist Grave at Ballyduff, Co.	
Co. Donegal	15	Wexford	50
Pivot-stones, Horizontal Mill,	24	Map of Athlone	60
Morett, Co. Laoighis	26	*	181
Morett Mill, Plan and Section		Beaghmore: Section S5, Circle C	101
Rathmacknee Castle: Sketch Plan	39	Beaghmore: Sketch Plan and	
Rathmacknee Castle: Plans of		Section	183
Tower	40	Beaghmore Flints	187
Rathmacknee Castle: Sections of		Beaghmore Axes	188
Tower	41		
Rathmacknee Castle: East Ele-		Pot-sherd of Neolithic A ware	189
vation	43	Beaghmore: Tree-Pollen Diagram	195

FOLDERS

	Facing				Facin	g
	page				page	,
Horizontal Mill, Morett,	Co.	Beaghmore:	Second	Group	of	
Laoighis	15	Circles			19	6
Lough Gara, showing Distribu	tion	Beaghmore:	\mathbf{T} hird	Group	of	
of Crannogs	93	Circles			19	6
Beaghmore: Plan, showing Gen	eral	Beaghmore:	Fourth	Group	of	
Layout	196	Circles			19	
Beaghmore: First Group of Cir	cles 196	Beaghmore:	Sections	***	19	6



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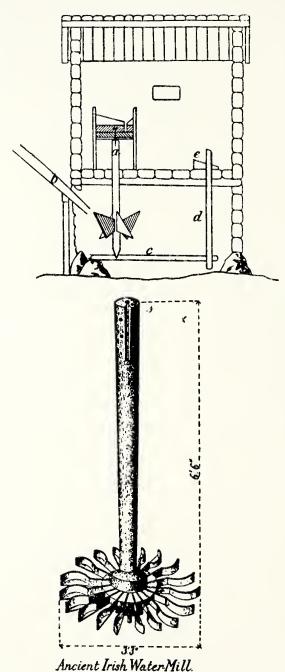
CONTENTS

				1	Page
THE HORIZONTAL MILL IN IRELAND—	by A. T. I	UCAS		•••	1
RATHMACKNEE CASTLE, Co. WEXFORD	—by H. (d. Leas	K	•••	37
Bronze Age Burials, Co. Wexford	— by Р. З	J. HART	NETT ANI	E.	
			•••	•••	46
THE SIEGE OF ATHLONE—by DIARMUII	d Murtagi	H	•••	•••	58
Na hÁIT-AINMNEACHA, Uggool, Ugg	goon—T.	s. Ó I	Máille,	do	
scriobh			•••	•••	82
THE TINSLEY PORTRAIT SKETCHES OF		IAM SM	тн O'Br	IEN	00
· ·			•••	•••	86
Lough Gara: A Preliminary Surv			oss	•••	93
St. Brigid and Glastonbury—by J	. L. Robin	NOSI	•••	•••	97
MISCELLANEA:					
Block-Wheel Car from Slievena	mon—(A.	T. Luc	AS)		100
What was a "Cloghinkelly?"—(100
Late Bronze Age Hoard from G	arden Hill-	—(́Р. J	. HARTNE	TT)	101
Who were the Gamanrad?—(M	. Е. Довв	s)	•••	•••	103
Notice of Books:					
Belfast in its Regional Setting	(Britis	H Asso	CIATION :	FOR	
. Advancement of Science)				• • •	106
Island Heritage—(W. Cubbon)		••	•••		106
Ancient Monuments in N. Irela	nd—(H.M	.S.O.)	•••	•••	107
CURRENT JOURNALS			•••		107
Proceedings		••		•••	109
REPORT OF THE COUNCIL FOR 1952					110
STATEMENT OF ACCOUNTS FOR 1952			•••	•••	115

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PLATE I] [Facing p. 1



Above: Horizontal Mill from Scandinavia, from Ymer, 22 (1902), p. 395.

Below: Millwheel from Moycraig, Co. Antrim.

THE JOURNAL

OF

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VOL. LXXXIII

THE HORIZONTAL MILL IN IRELAND.

By A. T. Lucas, Hon. Gen. Secretary.

THE horizontal mill is one of two types of watermill which have been used for grinding corn for something like 2,000 years. It has a limited and very interesting distribution in Western Europe, and a history in Ireland which goes back to the early centuries of our era. Its occurrence here has from time to time been discussed by various authors and the object of the present paper is to bring together all the Irish records of this mill which have come to the writer's notice, to describe several important discoveries and investigations recently made concerning it, and to reconsider previous conclusions about it in the light of the new data available.

The mechanism of such a mill will be understood by reference to Pl. I. 1. which shows a mill of this kind from Scandinavia. It consists of a vertical shaft from the lower end of which projects a number of vanes. blades or paddles against one side of which a stream of water is directed to turn the shaft. The upper end of the shaft passes through a floor or stage supporting the stationary lower millstone through the hole in which the shaft continues and is attached to the rynd or bar of metal fixed in the upper stone. As the shaft revolves it carries the upper stone round with it. performing the grinding. The lower end of the shaft is shod with iron or, perhaps, by having a nodule of hard stone driven into it. This stone or metal gudgeon rests in a hollow in a piece of stone or iron let into a wooden beam one end of which can be raised or lowered by a lever attached to it. By adjusting this lever the clearance between the millstones can be altered to produce the grade of meal desired. The wheel is turned by leading the water in a trough or chute and directing it against the vanes on one side of the shaft. As there is no gearing the drive is direct and every revolution of the wheel produces a corresponding revolution of the upper stone. mill can be stopped by cutting off the supply of water to the chute by means of a small sluice gate or even by merely altering the set of the chute so that the water gushes clear of the wheel.

LXXXIII.

The grain may be fed by hand through the eye in the centre of the upper stone but in modern examples the operation is always made automatic by the provision of a hopper suspended above the stone. The hopper is kept in vibration by any of a number of devices, one of the commonest of which is a stone or block of wood lying on the surface of the upper millstone and attached to the hopper by a string. As the millstone revolves the bumping of the stone or piece of wood on its uneven surface joggles the hopper sufficiently to ensure a trickle of grain into the eye of the mill. The only attention the mill requires is to replenish the hopper from time to time and to collect the meal which is discharged from between the stones around their perimeter.

DISTRIBUTION.

Bennett and Elton (1)* have dealt with the origin and distribution of this type of corn mill and, more recently, E. Cecil Curwen (2), utilising much additional material, has put forward some provisional conclusions on its lines of spread in Western Europe. These may be summarised as follows: The earliest reference to it may be a mention by Strabo of a mill, seemingly of this type, in the city of Mithridates, king of Pontus, near the southern shore of the Black Sea, somewhere about 65 B.C. To the east these mills are found in Turkey, Iran, Turkestan and parts of China but whether they spread thither from the Mediterranean area or reached the latter from the east it is at present impossible to determine. Mediterranean Europe the mills are found in Greece, with a northward extension into Romania. In Western Europe their distribution, except in the far north, is exclusively coastal. The districts in that region in which they are, or were, in use comprise: Northern Spain, the Garonne district of France, Ireland, Isle of Man, Scotland (Hebrides, Orkneys, Shetlands, but very few on the mainland except at Hawick, near the English border, in the south and in Caithness and Sutherland in the north), Faeroes, Norway and parts of Sweden.

Curwen's interpretation of this distribution is that the mill came from Spain to Ireland, presumably directly, in pre-Viking times, was adopted by the Vikings from the Irish in the course of their contacts with this country and spread by them to their dominions in Man and the Scottish Islands and ultimately to their Norwegian homeland, from where it naturally crossed into the adjacent part of Sweden.

Curiously enough, in the Faeroes which ought, one would think, to form an early link in this chain of transmission, a recent writer has expressed the opinion that it is of comparatively recent introduction: "I cannot believe that the horizontal mill has a long history in the Faeroe Islands: if it has, then it must have been an exceedingly rare object until the 19th century" (3).

For the benefit of those who are unfamiliar with the subject it may be as well to complete the picture of corn milling in early Europe by stating

^{*} The numerals in brackets refer to list of references at end.

that over the remainder of the continent a wholly different type of mill was in use; one first described and, possibly, invented by the Roman engineer, Vitruvius, between 20 and 11 B.C. It has a vertical wheel with a horizontal axle, the wheel being furnished on its circumference with blades or buckets which are turned by the force of the water which can flow under or over the wheel or impinge upon it at half its height. The motion of the horizontal axle is transmitted to the vertical spindle which turns the upper millstone by means of a number of cog-wheels, the minimum number of which is two. This mill spread northwards through the greater part of central Europe, reaching England by the 8th century. Although supplemented and, in some places, replaced by the windmill which was introduced sometime in the medieval period, it has remained the standard type of mill everywhere in its province, and in those parts of the world colonised from that province, until our own day. It is only in modern times, with the centralisation of the flour milling industry and the introduction of sources of power other than water, that it has begun to be superseded.

Although no study has been made of its history in Ireland it seems reasonable to suppose that this type of mill was, to a limited extent at least, brought here from Britain by monastic orders like the Cistercians in the 12th century and by the Anglo-Normans. Whatever the date of its introduction we may here anticipate our conclusions a little to remark that it was its somewhat more primitive relative, the horizontal mill, which remained in use over large areas of the Irish countryside down to comparatively recent times.

In this discussion of mills it is, of course, necessary to avoid falling into the error of overestimating their importance and to remember that all over Europe, as well as in these islands, a large proportion of the meal and flour for domestic consumption was produced in the homes of the people by means of querns and mortars of various kinds. The records of the Irish Folklore Commission disclose that as late as 1937 there were still living in the west and south-west of the country many people who remembered and described the use of querns in their homes (4) while even in such a relatively sophisticated district as Callan, Co. Kilkenny, Humphry O'Sullivan records in his diary for July 31, 1827: "The querns are at work in Derreen, on the marsh close to the ponds, and in many (other) places; for, as the barley did not ripen all together, people did not think it worth while to go to the mill with a small quantity (each time)" (5). In 1893 the guern was used in Inishbofin and Inishark to provide meal for animal and human use when supplies from the mainland ran short (6) and, we may be sure, this is far from being the date of its final extinction.

It should be remembered, too, that from medieval times down along the importance of the mill has been artificially enhanced by innumerable local regulations designed to prevent the home-grinding of corn and to increase the revenues of the lords of the soil by forcing tenants to use the manor mill with, of course, an appropriate surrender of dues. It is of interest to note that clauses to this effect were incorporated in the leases of tenants in some parts of Ireland into the 19th century (7) but it is difficult to discover to what extent these were really enforceable or were merely legal fossils.

DISCOVERIES AND NOTICES.

For over a century the occurrence of the horizontal mill in Ireland has, from time to time, been the subject of discussion in archaeological literature and elsewhere. The major contributions to the study were made by: O'Donovan (1833), Petrie (1839), Graves, Prim, Windele and others (1850), MacAdam (1856), Bennett and Elton (1898), O'Reilly (1902), Joyce (1903), Knox (1907) and Curwen (1944). In addition to these, discoveries of a small number of remains have been published which, in the light of present knowledge, can, with reasonable certainty, be interpreted as relics of these mills. The following is a summary of all the references of either kind of which the writer is aware.

Townsend, writing in 1810 (8), describes a discovery made by the side of the river Anahincha, near Castlefreke, Co. Cork, in 1803, which may well have been the dam of such a mill. It was a wooden cistern with a paved bottom and, although his account is exceedingly ambiguous, the wooden sides seem to have been constructed by an extraordinarily interesting technique.

O'Donovan (9) in 1834, writing from Monasterlyn, Co. Derry, states: "The name of the T.L. of Killynumber is in Irish Cul an umair (Coolanummer) i.e. the back or retired place of the trough. Frank Higgins says that there was a trough and the ruins of a Danish mill dug up there as he was told by the old people, but there is no believing him!" O'Donovan's respect for oral tradition tended to be of the scantiest and, in view of the associations of troughs and mill ruins to be presently observed in Kilkenny and Cork, we need not share his distrust of Higgins's story. As in all such contexts "Danish" here is a folk word for the ancient and mysterious.

O'Donovan (10) and Petrie (11) are concerned with watermills in ancient Ireland without adverting to any specific type and cite a number of references to them from the lives of the Irish saints and other early documents.

An article on mills appearing in the Transactions of the Kilkenny Archaeological Society of 1850 (12) is in the nature of symposium to which the chief contributors are Graves, Prim and Windele. It is very confused with brief and vague descriptions, none of which is illustrated by a sketch or drawing of any kind. In all, fourteen sites are mentioned of which four (Ballymartin, Bramblestown, Smithstown and Kilmagar) are in Co. Kilkenny, one (Timahoe) in Co. Laoighis, one (Lodge Park) in Co. Kildare and the remaining eight (Bantry, Mallow, Muskerry, Donaghmore, Ballindeasig, Kilnagross, Inchidoney and Shanacashel) in Co. Cork. At Ballymartin, Lodge Park, Timahoe, Bramblestown, Smithstown and Shanacashel

structures were discovered which, in the light of the Morett site to be described later, can only be interpreted as the wooden dams of mills, some of them being actually situated in stream beds. At Shanacashel and Smithstown these were accompanied by wooden troughs, 12-14 feet long, which, again on the Morett analogy, formed essential parts of horizontal mills. The sites at Kilmagar, Mallow, Bantry, Muskerry, Donaghmore, Ballindeasig, Inchidoney and Kilnagross revealed similar troughs averaging 14 feet in length, while of these all except Kilmagar and Inchidoney yielded mill shafts provided with mortices at one end to house a set of vanes. Apparently all the Cork sites and Bramblestown in Co. Kilkenny produced millstones, the dimensions of which are given in three instances and vary from 2 feet to 2 feet 5 inches in diameter.

The presence of millshafts of the type described at six of these structures leaves no room for doubt but that they were horizontal mills, while that of troughs or dams, or both, at the remainder gives us, on the strength of the Morett example, good grounds for concluding that these, also, are mills of the same kind.

In 1848 at Milverton, near Skerries, Co. Dublin, there were discovered in a watercourse several dams of yellow clay and a millshaft, about 4 feet long, into which were mortised "eight large wooden spoons, each about 2 feet by 14 inches, scooped out of a solid piece of oak rounded at the end. . . ." (51)

The next reference to this mill in Irish archaeological literature is an article by Robert MacAdam describing the famous and much reproduced wheel and shaft, now in the Belfast Municipal Museum, which was found in a bog at Moycraig, Co. Antrim (Pl. I, 2), in which article he also deals with portions of a similar wheel and its pivot stone from Killinchy, Co. Down (13). MacAdam's theory is that this kind of mill was introduced into Ireland by the Norsemen and adduces examples from present and former Scandinavian territories to prove his point. His main contribution to the Irish aspect of the subject is, however, his description of the two wheels mentioned, a footnote alluding to the discovery of a millstone and an oaken trough hollowed out of a single piece of timber at a spot traditionally known as the site of an ancient mill at Killyscolban, Co. Down, and a quotation from the Montgomery MSS. c. 1698 which states that mills of this type, then known as Danish mills, were to be found in operation in almost every townland in the Newtownards district of Co. Down (14).

Like the contributors to the discussion in the Transactions of the Kilkenny Archaeological Society MacAdam was evidently unaware of the contemporary existence of such mills in the country and it was left to a correspondent named Michael Deering, writing in the next volume of the same journal, to point out this. "As you do not seem to be aware that there are at present in use in Ireland horizontal mills like the one figured and described in your able article on Ancient Watermills it may perhaps be interesting to you to mention that I have seen them precisely similar in every

respect in Mayo and other parts of Connaught. In Irish they are called by the quaint but expressive name of muileann ton le talamh; but, when speaking English, the people call them 'gig mills'. Though rather ineffective looking machines I am told that those who have used them like them very much.'' (15).

Wilde (16) identified some wooden fragments which had been found in a bog in the parish of Banagher, near Dungiven, Co. Derry, in 1838, as parts of a horizontal mill. These include three "scoop-like pieces, each about 14 inches long, and perforated at the extremity, dished at one end, and having a projecting ledge or step at the back, near the perforation. These, it is believed, were inserted into the periphery of an upright wheel or shaft, and served as buckets or floats against which the stream played." He then goes on to add, evidently from personal knowledge, one of those inexplicably rare references to the contemporary existence of these mills. "On the borders of the counties of Mayo and Roscommon there still exist small cornmills, called 'gig mills', the stones of which are not much larger than querns; and in these the water plays upon horizontal floats inserted into an upright shaft."

The fragments which Wilde catalogues evidently came from the site which Petrie, writing to Larcom of the Ordnance Survey in 1838 (17), describes as follows: "A very curious discovery... was made yesterday in the parish of Banagher. I am unable to describe it accurately as yet, though I have been to see it with Portlock; but you shall have a full and true account on Monday or Tuesday. For the present I can only say that it is a large wooden reservoir for water, with a conduit of oak, hollowed to carry the water to it, and a sewer of the same material to carry the water off." This, without any doubt, was a mill and Petrie has probably reversed the functions of the conduit and "sewer" in error. The reservoir was the dam to which the water was led by the "sewer" and from which it was taken by the conduit or trough to the wheel.

In 1861, during the construction of a pond in the grounds of Kilkenny Castle, remains of a mill were discovered in the vicinity of a well known as "The Seven Springs." An oak trough 8 feet long, 3 feet 2 inches wide at one end and 2 feet 4 inches at the other, was found at a depth of about 5 feet below the surface. Its external depth increased from 1 foot 2 inches at the wider end to 1 foot 10 inches at the narrower, while its internal depth at the latter was 1 foot 6 inches. The wider end was open but the narrower was closed by a thickness of 1 foot of timber left unexcavated. This was pierced by two openings, side by side, one 6 inches by 8 inches, the other 9 inches by 12 inches, by which water entering through the open end of the trough could be led in a jet against the paddles of the millwheel. It is almost certain that in actual use only one of the orifices would have been utilised, first, in order that the jet might be stronger and, secondly, that it might strike the paddles at the proper point without waste of power. With the trough, and forming a sort of framework on which the end of it rested,

were three long beams and three planks. The relative positions of these timbers are not very clear from the description but the beams bore mortices and it was suggested that they might have formed the floor of a wooden dam. In the light thrown on these structures by the Morett mill, described later, this is almost certainly the correct interpretation of their function (18).

Bennett and Elton (19), who were concerned with tracing the world distribution of the mill, merely recapitulate all the available evidence for its presence in Ireland but, apparently, missed Deering's note quoted above vouching for its existence up to 1857.

Macalister (20) describes two structures which may be the remains of early examples of these mills. The first is in the Early Christian settlement at Fahan, Corkaguiney, Co. Kerry. "The building may be described very simply: it is a rectangular structure, now roofless, measuring on plan 5 feet 6 inches east to west, 9 feet north to south. A doorway gives access to it on the south side: this is 4 feet 2 inches high and still retains its flat lintel. There are indefinite traces of a wall to the south. . . . I see no reason to question the universal local tradition, that this is the remains of an ancient water-mill . . . it appears that a portion of the neighbouring river was deflected to pass through the building, turning the wheel in its course. It is open to doubt whether we may assign to the Muilleann Maol an antiquity equal to that of the other remains which we have been describing: there is evidence that the inhabitants of the settlement used hand-querns for grinding purposes." This last argument has no force whatever since, as has already been pointed out, querns and mills are far from being mutually exclusive.

The second structure, mentioned by Macalister in the same publication, is described as follows: "Remains recognisable as those of a water-mill were to be seen within this century on a streamlet on the little island of Ardoileán, off the Galway coast, no doubt connected with the seventh-century monastery, whose ruins are still existing there." (21).

O'Reilly (22), in an able discussion of the problem of these mills on a world basis, again goes over a great part of the Irish data without, unfortunately, adding anything to our knowledge of the Irish material except the publication of a pivot stone on which the lower end of the shaft of such a mill revolved. The stone was found at Ardmore in the Mullet, Co. Mayo, at the bottom of a cut-away bog and is a waterworn pebble of white quartz, 133 mm. long, 109 mm. broad and 50 mm. thick. Near the centre of one of the flat faces is a conical hole 18 mm. deep. The cone is in two phases, wide for about half its depth with a narrower section below demarcated from the other by a pronounced shoulder.

Joyce's treatment of the subject of corn-mills is, naturally, rather generalised but he brings together a number of ancient references to them from Irish secular and ecclesiastical literature (23). It may be mentioned, however, that in his discussion of the "Eight Parts of a Mill" from the

Brehon Laws (24) he is misled into thinking that the wheel was an overshot vertical one with a horizontal shaft, and gratuitously introduces cog-wheels to transmit the motion of this shaft to the vertical spindle which turned the upper stone. In putting forward this reconstruction he is obliged to ignore the fifth part as mentioned in the law text, the herintiu, translated as "shaft-stone" and described in the gloss as: "the little stone which is under the head of the shaft, on which the shaft turns." Now the herintiu (or ermtiud) can be only one of two things: it is either the stone gudgeon driven into the end of the shaft to form a pivot such as MacAdam describes as still in position in the Moycraig wheel or the pivot stone in which this gudgeon turns, like the one from Ardmore, the description of which is quoted above from O'Reilly. There is no place for either "under the head of the shaft" of a vertical mill and Joyce's error is the more surprising as he proceeds to the discussion of horizontal mills on the following pages and reproduces the figure of the Moycraig wheel.

It is an extraordinary fact that although mills of this type everywhere attracted the attention of tourists and travellers, Goudie (25) citing no less than seventeen separate notices of the Shetland ones alone, apart from the few general statements already mentioned and some few to be cited later, the writer knows of only a single published eyewitness description from Ireland. This is the account given by Knox (26) of two which were still working in 1906, both in the Ballyhaunis neighbourhood, one at the western end of Cullentra Lough in Co. Mayo, the other in the townland of Meeltraun (Denis Kelly), which is just across the border in Co. Roscommon. He further adds that such mills abounded in the region and that most of the existing vertical mills were known to have originally been of the horizontal type. It is unnecessary to reproduce his descriptions but a few of his details are of special interest and will be referred to presently.

The most recently published discovery relating to these mills is that at Knockrour, in the Aghabulloge district of Co. Cork, described by O'Conlon (27). Here a trough, hollowed out of a single piece of timber, was found. It was 13 ft. 6 ins. long, narrowing from an open end, where it was 26 ins. wide internally, to a closed end, where it was only 8 ins. wide, the latter being pierced by a hole 8 ins. in diameter. The trough was covered by a plank of wood resting on an internal ledge 3 ins, wide running the full length of the two long sides at a depth of 4 ins. below the upper edge. The broader end of the trough rested on a balk of wood 6 ft. long in which a groove 3 ft. long and 4 ins. deep had been cut to house it. The narrower end was supported by a large flat stone standing on edge, nearly 6 ft. long but only a couple of inches thick. In the centre of the lower portion was a rectangular opening 2 ft. wide, so that the flag appeared to be shaped like an inverted U. It is not stated to what extent this opening might be regarded as natural or artificial and, since only a schematic elevation is given, it is impossible to judge for oneself. Certainly no conceivable purpose could be served by it in the position in which it was found. It is, however, possible that the slab

was originally intended to be used with the gapped side up, in which case the opening would have comfortably housed the narrower end of the trough, which was 20 ins. in external width. When set up it may have been found that the end of the trough was too low or that not enough of the slab could be sunk in the ground to give stability so that the millwright had to make do by reversing it.

From the balk of timber under the broader end of the trough extended a small triangular structure, 15 ft. 6 ins. long, open at the wider end where it measured 15 ft. 4 ins. across. The two side walls consisted of planks set on edge supported by upright posts. Of the western side only the lower part remained: two planks, 2 ft. wide and 6 ins. thick, placed end to end, with four posts 3-5 ft. in height to hold them in position. The eastern side was in better preservation and consisted of four planks: two set on edge and end to end on the ground with the other two resting on the upper edges of these, the whole being supported by three posts 3-5 ft. high. The planks themselves were 9-12 ft. long; their other dimensions are not given except in the case of one, which is stated to have been 13 ins. wide and 8 ins. thick.

From the Morett site, which the present structure resembles in several details (see below), it is evident that this triangular structure is the dam of a mill. O'Conlon, on the basis of the T.K.A.S. article above, identifies the site as that of a mill without specifically adverting to a horizontal one but there can be no question but that it is of this type. It is interesting to note that the mill trough from Kilmagar, Co. Kilkenny, mentioned by Graves had a plank cover similar to that in the Knockrour specimen and narrowed to one end in the same fashion, and that the trough from Kilkenny Castle had a similar closed end pierced by two holes.

Curwen, whose contribution to the subject has already been mentioned, deals with all the more important notices of these mills though he does not advert to Knox's valuable contemporary description.

This concludes the review of all the information hitherto available about Irish horizontal mills: it remains to place on record some additional data on them which has since come to light.

KILLOGRONE MILL, CO. KERRY.

The site of this structure is a wide moory basin among the hills south of Cahirciveen, Co. Kerry. It was visited on September 8, 1949, but was so overgrown with heath and bushes that an examination was difficult.

Briefly the remains consist of two parallel low walls of dry stone about 4 m. long, having between them a passage 115 cm. wide at the southern end and 100 cm. wide at the northern. The walls are about 2 m. thick and in the centre remain to a height of about the same. Their outer faces are dilapidated and covered with bushes but their inner ones are in fair preservation. The inner faces are not vertical but are corbelled one towards the other from the base upwards so that the passage is narrower at the top than

at the bottom. The corbelled face of the eastern wall remains to a height of 160 cm. and the total oversail, top above bottom, amounts to about 40 cm.; that of the western wall being approximately the same. Thus, at the

HORIZONTAL MILL, KILLOGRONE, CO. KERRY

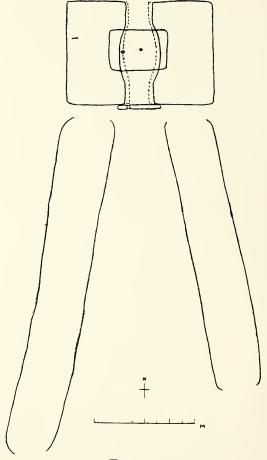


Fig. 1.

southern end of the passage, which is better preserved than the northern, the walls are 115 cm. apart at the bottom but only 70 cm. apart at the top. The passage formed by the walls is, however, not uniformly of these dimensions for towards the centre the walls recede from each other in a gentle curve to leave a maximum width of 145 cm. between them at their bases. This widened portion occupies about half of the entire length of the

passage and the inward corbelling is carried round this part at about the same angle as in the remainder of the walls. The walls are built of moderately sized stones, reasonably well chosen and fitted. The largest stone visible on the inner faces measured 85 cm. in length, 30 cm. in depth and 60 cm. in thickness but an average stone was about 30 cm. long and 10 cm. deep.

No excavation was carried out but, as the floor of the passage was filled with debris fallen in from the tops of the walls, some of these stones were moved in order to facilitate measurements being taken. In the course of moving these it was discovered that a slab forming a sort of sill ran across the southern end of the passage, being bedded against the outer faces of the two wall ends. It was a flat rectangular slab standing on edge on one of its long sides, 160 cm. long, 8-12 cm. thick and as nearly as could be ascertained, 60 cm. deep, about 50 cm. being visible above the mud which lay beneath the debris filling the floor. Situated at a distance of about 10 cm. from the western wall face, a large rectangular notch 12 cm. wide and 10 cm. deep had been cut in the upper edge of this slab.

Outside this slab and blocking up the whole southern end of the passage lay another and much larger slab, roughly rectangular in shape, with rounded corners, 225 cm. long, 155 cm. wide and 10-15 cm. thick. Somewhere about the median line of this slab two holes had been bored through it. One lay at a distance of 45 cm. from the western edge and consisted of a central circular perforation 7.5 cm. in diameter surrounded by a circular depression 10.5 cm. in diameter, as if the thickness of the stone had been reduced by hammering or pocking over the larger area before the final perforation was made. The wall of the perforation was rough and irregular. The second hole lay at a distance of 60 cm. from the first and about 100 cm. from the eastern edge of the slab and was thus situated approximately at its centre. This hole was 9 cm. in diameter and the wall of the perforation was perfectly smooth and polished.

For our present purpose no other feature of the structure remains to be described except two low banks, now covered with humus and overgrown with grass, which run from the southern end of the mill, the eastern one for a distance of about 10 m. and the western for about 13 m. These banks are about 2 m. thick, 1.5 m, in greatest height and appear to be built of stone or at least to rest on stone foundations. Neither of them butts directly against the end of the corresponding wall of the structure but is separated from it by an appreciable gap. Except for these gaps they may be regarded as extensions to the south of the passage walls already described. They do not, however, run parallel to each other but diverge gradually apart so that the width across them at their southern extremities is about 10 m.

According to the Ordance Survey Memoranda on Sheet 80, Co. Kerry, this structure was ruinous in 1846 and was known locally as an old mill "used by the Danes."

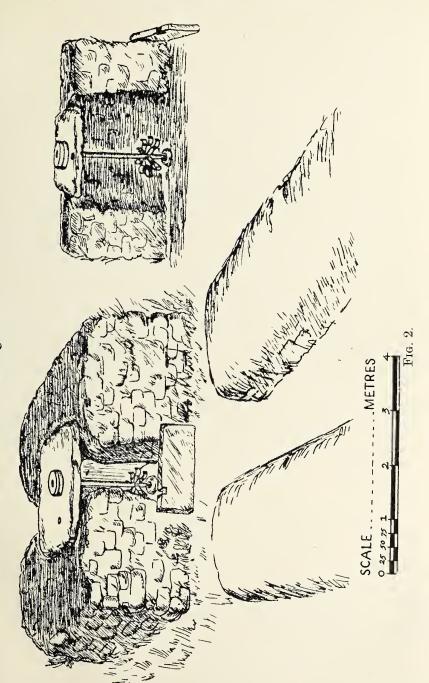
Reverting to the description of the horizontal mill from Scandinavia, above, it will be seen that the features of the present structure are those of a mill of this type. The mill wheel must have been situated in the centre of the passage, the increased width of which at that point was designed to give room for the vanes and also, most likely, for the accommodation of the adjustable beam on which the lower end of the mill shaft bore. The holed slab now lying displaced against the southern end of the passage must originally have occupied the position shown in the sketch (Fig. 2), spanning the top of the passage and forming the floor of the mill-house on which the lower millstone rested. The shaft of the wheel passed up through the central hole which has been polished smooth by its revolutions. The end of the lever for raising or lowering the beam supporting the shaft may have passed through the second hole in the flag in which case the lever must have consisted of an iron bar for it is difficult to imagine a wooden lever, bearing at least half the combined weight of the shaft and upper millstone functioning when reduced to a diameter of less than 7.5 cm. (the diameter of the hole) and then further weakened by the attachment of some sort of a crosstree beneath which wooden wedges to raise or lower the foot beam would have to be hammered. It is possible, however, that the hole may have never served this purpose and may only be the result of an original miscalculation, having been intended to accommodate the shaft and subsequently found to be so badly placed that a fresh boring had to be made.

The remainder of the space between the tops of the walls must have been bridged over with similar slabs, now disappeared, to form the floor of the small millhouse which sheltered the mechanism and the persons using it from the weather. Such flagged floors are characteristic of these mills in treeless districts like the Shetlands (28) and there is little likelihood that the immediate neighbourhood of Killogrone was ever less devoid of timber at any period during historic times than it is at present. The corbelling inwards of the walls allowed the use of shorter slabs than would have been required if they had been vertical and, by reducing the unsupported area, considerably minimised the risk of their breaking under the weight imposed on them. Had timber been used the corbelling device would, of course, have been quite superfluous in the case of such a small span.

The notch in the sill stone across the southern end of the passage housed the trough through which the water was led against the vanes of the wheel. It is worthy of remark that the notch being towards the western end of the stone the water entering from the southern end of the mill would impinge upon the wheel to turn it, and consequently the millstone also, in a clockwise direction i.e. in accordance with the ancient and far-flung prejudice in favour of the right hand turn, the deiseal or sunwise turn that brought good luck.

Thus even without the traditional identification of the structure with a mill it will be seen that, beyond any possibility of a doubt, we are here dealing with a mill of the type already described, and illustrated by the Scan-

HORIZONTAL MILL, KILLOGRONE, CO. KERR Elevation and Partial Reconstruction



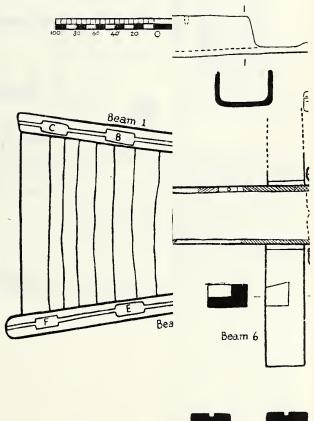
dinavian example. The strange thing about the site is that the stream which must once have worked it has now completely disappeared. From a superficial examination of the ground nothing appears which might with certainty be interpreted as its former channel. All that can be said is that the two diverging banks proceeding from the southern ends of the mill walls undoubtedly represent the remains of the side revetments of a small pond dammed up immediately in front of the mill in order to provide a reservoir supplying a constant and easily controlled head of water with a steeper spillway down the trough to the wheel than would have been obtained by utilising an unobstructed natural or artificial channel. Such dams are a regular feature of these mills where they are still in use. nearest water supply is a stream that makes its closest approach to the mill at a point 48 perches to the east. As, however, the ground slopes from the mill to the stream along the line of this shortest distance it would have been necessary to tap the stream for a race at a point much farther up the hill. It is, perhaps, idle speculation to try to suggest any rational reason for the erection of the mill at a spot which necessitated leading water for such a distance in an artificial channel when by placing it on or nearer the parent stream such a channel would either have been eliminated altogether or reduced to a short bypass. The most plausible suggestion is that the mill was originally sited on a stream which has since diappeared as the result of some subsequent drainage system. If this is not the explanation the existence of some forgotten land boundary may have been responsible for its seemingly inconvenient position with regard to water supply. Excavation would probably settle the course of the now invisible channel.

No date can be assigned to this structure. It lies in close proximity to an ogham stone (29) standing near an enclosure and several ruinous buildings which have a vague Early Christian complexion but whether the mill can possibly be associated with these it is quite impossible to say. It will be found on O.S. Kerry 80, 5.5 cm. from west, 10 cm. from south.

PIVOT STONE, BALLYSHANNON, CO. DONEGAL.

The National Museum has recently acquired an object to which, if it is not the pivot stone for the shaft of a horizontal mill, it is difficult to assign a use. It was found in the river Erne at Ballyshannon, Co. Donegal, and is a large water-worn pebble of a coarsely grained basic rock, probably a dolerite. It is bluntly oval in shape, flattened on the upper and lower faces, and is 15.5 cm. long, 14.5 cm. wide and about 6.7 cm. thick. On one flat surface is a group of four circular depressions, three of which lie almost in a straight line with the fourth to one side of it. On the other face is a group of five holes forming a cruciform pattern. These holes are small bowlshaped cavities with a very small secondary depression at the bottom of each. They vary slightly in size but average about 2.5 cm. in diameter and 1.7 cm. in depth. Their surfaces are smooth and polished with, in some

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Beam 1 : Secti

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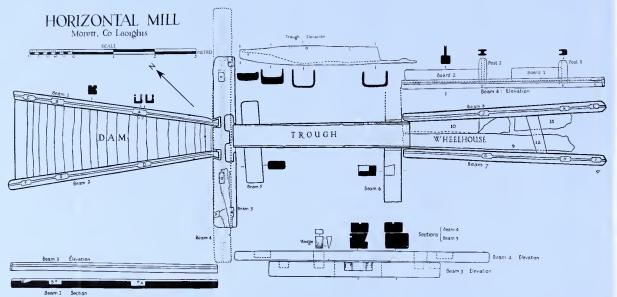
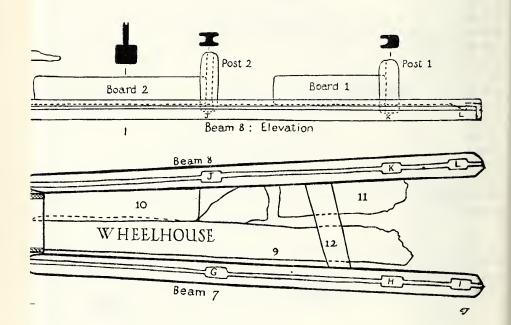
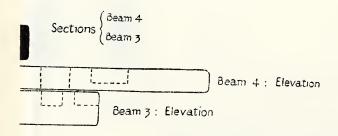


Fig 4





cases, traces of minute horizontal striations as if they had been made by some object revolving at high speed. In several the axis of the cavity is not at right angles to the median plane of the stone showing that when the boring object was spinning in these cavities the stone was tilted slightly instead of lying flat.

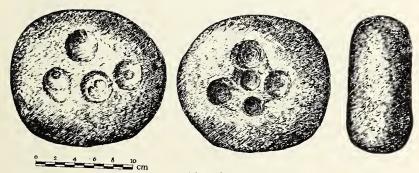


Fig. 3.

Pivot-stone from Ballyshannon, Co. Donegal.

The most likely explanation of these cavities is that the pebble was the pivot stone of a horizontal mill—the *ermtiud* of the Brehon Laws—which supported the gudgeon of the shaft and which, having been found specially suitable on account of its hardness, had every possible fraction of its surface utilised by making a fresh cavity when the last had worn too deep. It may be compared with the one from Ardmore, Co. Mayo, O'Reilly's description of which has been already quoted.

MORETT MILL, CO. LAOIGHIS.

The discovery of this site was reported to the National Museum by the landowner, Mr. Philip Duff, and the structure was investigated a few days later, on May 28, 1952, by Mr. Kevin Danaher of the Irish Folklore Commission and the writer. Its position will be found on O.S. Laoighis, sheet 9, in left hand bottom corner, 6.3 cm. from west and 5.2 cm. from south. It lies in a shallow depression which was formerly filled with bog and which, in 1951, was drained under the Government Land Rehabilitation Project. Rising ground to the south-east of the site, till recently a wilderness of bushes, had been brought under cultivation and the field in which the present structure lay was being ploughed preparatory to having its first crop sown in it when the discovery was made. The plough struck a large beam of wood which was removed but, when further timbers came to light, ploughing on the spot was discontinued and the matter reported.

When we arrived the parts of the structure visible were (Fig. 4): beam 4, the one which the plough had struck and which had been removed to a short distance; beam 3; the trough and south tips of the dam side beams,

1 and 2. With the help of voluntary labour, kindly recruited by Mr. Duff from his relatives and neighbours, the structure was uncovered. It lay on the fine, sticky, grey-blue clay which formed the substratum of the bog and had been completely enveloped by the peat, no surface indications of its

presence having been apparent.

The remains were the understructure of a horizontal mill and consisted of the dam, a large wooden trough and the wheelhouse (Pl. II, 1 & 2). It was built wholly of wood, oak being exclusively used. These three parts lay in a straight line and ran roughly N.W.-S.E., although for convenience a conventional N.-S. is used in the descriptive text. Of the dam only the floor remained, but that was in an extraordinarily good state of preservation. The trough was almost intact and in its original position. Of the wheelhouse the floor remained and, fortunately, part of its east side was preserved also, giving valuable information on the original construction of the upper structure both of it and the dam.

THE DAM.

Plate III, 1.

This was shaped like a triangle with the apex cut off, the wider and open end to the north. It consisted of a wooden floor bounded by large beams, 1 and 2, to east and west. It was 476 cm, long, 188 cm, wide at the north end and 86 cm, wide at the south end. The side beams were almost identical in shape and dimensions, cleanly cut and with surfaces still very true. They were rectangular in plan and section, 20 cm, wide and 17 cm, thick. In the inner side of each a longitudinal groove, square in section, 4 cm, wide and 4 cm, deep, ran the full length of the beam along its median line. These grooves housed the ends of the floor boards which were 24 in number, rectangular in shape and of an average thickness of 4 cm. They overlapped each other in series from north to south, the average amount of overlap being about 6 cm. The widths of the visible portions of the boards varied from 10-24 cm. The south edge of the last floorboard at the south or narrower end of the dam was housed in a groove made to receive it in the north edge of beam 3.

In the upper surface of each beam was another longitudinal groove of similar square section but larger, being about 6 cm. wide and 6 cm. deep. In each beam this groove was interrupted by three large mortices, the corresponding ones in the two beams lying opposite each other. Of these six mortices four (A, B, D, E) were alike in shape and dimensions. They were rectangular in plan and section and were 30-33 cm. long, 13-18 cm. wide and 12-16 cm. deep. Through the centre of the outer and inner wall of each a hole 2-3 cm. in diameter had been bored (Pl. V, 2). The mortices in the north ends of the beams (C and F) formed a pair differing in shape from the others. These were rectangular in plan but triangular in north-south section, only their north ends having been cut to the full depth, so that the bottoms sloped up on the south side to the surface of the beams. Fig. 4, Beam 1,





Morett Mill: (1) View from end of dam.
(2) View from end of Wheelhouse.





section and Pl. IV, 1). C was 22 cm. long, 15 cm. wide and 7 cm. in greatest depth; the corresponding measurements for E being 26, 14 and 9 cm.

The function of the mortices A, B, D, E is apparent from the discoveries in the wheelhouse to be detailed later. They held upright posts, the bases of which were pinned in place by wooden pegs driven through the holes in the walls of the mortices into holes piercing the posts from side to side. The posts were of rectangular section and the north and south faces of those in A and D and the south faces of those in B and E were rabbetted to house the vertical ends of the boards which formed the side walls of the dam, the lower edges of the boards sitting in the grooves in the upper faces of beams 1 and 2. No remains were discovered in the dam which would explain the function of the peculiar end mortices C and F but there can be little doubt that they held the bases of sloping struts propping the posts standing in B and E. If this explanation of the purpose of C and F is correct then the portions of the upper grooves in beams 1 and 2 to the north of E and B must have been superfluous. This need not raise any questions since, in all likelihood, the making of the grooves was the first operation carried out on the beams before it had even been decided where the mortices were to be cut and, in any event, the amount of waste effort involved in cutting the unwanted length of groove would have been negligible.

BEAMS 3 AND 4.

Beam 3 (Pl. III, 2) was a very massive balk of timber lying at right angles to the median line of the dam, 402 cm. long, 46 cm. wide and 35 cm. thick. In the north edge of its upper surface were two open dovetail mortices holding the dovetail tenons in which the beams of the dam ended to the south. At the time of our examination the tenons were considerably smaller than the mortices in which they lay but whether this was due to shrinkage or was an original feature is difficult to decide. It is just possible, since beam 3 was one of the first parts of the structure to be exposed, that a rapid shrinkage of the tenons had taken place in the few days which elapsed between the uncovering of the beam and our arrival. If the tenons had originally been a close fit for the mortices the use of this type of joint would not only have attached the dam beams more firmly to beam 3 but would also have served to prevent any lateral movement of the former which would have thrown the floor boards out of their housing grooves.

The segment of the north edge of beam 3 lying between the tenons was, as has already been stated, grooved to take the south edge of the last floor-board of the dam.

In the centre of the opposite edge of the beam was a large and complicated recess which can best be described as a rectangular hollow with vertical sides, 109 cm. long, 23-25 cm. wide and 18 cm. deep. (Pl. V, 1). From the south wall of this recess a section 66 cm. wide and the full depth

of the recess had been cut away and the end of the trough pulled into the gap so formed. From the wall of the recess opposite this opening a tongue of wood, a truncated triangle in plan, projected into the centre of the space for a distance of about 12 cm. Its side faces were vertical but the south one, facing the end of the trough, was undercut to a depth of 9 cm. only function which can be assigned to this elaborate recess is to accommodate the end of the trough. It would seem as if the end of the latter was intended to butt against the projecting tongue of timber, and to fit closely beneath its inward sloping south face. The trough was evidently held in this position by pegs driven horizontally into its east and west sides and left projecting into the spaces at each side of the tongue. Any tendency of the trough to slide out of place was prevented by these pegs catching against the horns at each side of the gap. In addition to accounting for the nature of the recess this theory also explains the presence of the two horizontal peg holes in the sides of the trough to be mentioned later. Besides, since the greater part of the recess was originally hidden under beam 4 there would seem to be no other use which it could have possibly served.

The only other feature of beam 3 which needs consideration at any length is the pair of mortices, N and O, lying nearest the recess, one to the east, the other to the west. These are not symmetrically placed with regard to The east one, lying farther from the recess and nearer to the north than to the south edge of the beam, was rectangular in plan, 21 cm. long, 13 cm. wide and 15 cm. deep. The west mortice was roughly the same size, measuring 22 cm. long, 13 cm. wide and 15 cm. deep. function of these two mortices will be dealt with presently in the description of beam 4. All that remains to be said about beam 3 is to record the dimensions of the three mortices, M, P, Q, which, having been almost completely concealed by beam 4, must have been functionless and had best, perhaps, be interpreted as relics of a former experimental lay-out. Mortice M was cut into the upper face of the east end of the beam at a distance of 30 cm. from the north and 6 cm. from the south edge and was 22 cm. long, 11 cm. wide and 14.5 cm. deep. Of the two west mortices that cut into the north edge of the beam, P, was dovetail in shape, 13 cm. long, 13 cm. wide at the inner (closed) end, and 10 cm. wide at the outer (open) end. Its original depth could not be determined owing to considerable surface decay of the beam at this point. The depth of the remaining mortice, Q, was also doubtful but, as well as could be measured, its length was 20 cm. and its width about 18 cm.

BEAM 4.

This was the beam which had been struck by the plough and removed from its place. Even in the short period which had elapsed between its removal and our examination it had already shrunken and warped considerably as a result of its exposure to the air. It was rectangular both in plan and section and was 600 cm. long, 42 cm. wide and 23 cm. thick. Along



Morett Mill. (1) End mortice in dam beam.
(2) East side of Wheelhouse. (N.B. Upright board nearer camera incorrectly replaced for photography. See Plan).





1.



 2

Morett Mill. (1) Beam 3, showing recess to hold end of trough.
(2) Mortice in dam beam.

the median line of its upper surface a groove similar to those in the dam beams had been cut. Interrupting this groove were four rectangular mor-Of the two outer ones that to the east was 39 cm. long, 17 cm. wide and 15 cm. deep; that to the west 39 cm. long, 21 cm. wide and 14 cm. deep. The two inner ones extended right through the thickness of the beam and of these the east one was 27 cm. long by 16 cm. wide and the west one 23 cm. long by 14 cm. wide. Mr. Duff and several other persons who had seen the beam in its original position stated that when discovered it lay longitudinally on top of beam 3 and was fastened to it by wedges driven through the two central mortices. It should be noted that in the accompanying plan the usual convention has been reversed and this beam, although the upper one, has been shown with a dotted outline, while the lower beam (3) has been drawn in solid lines. This has been done in order that a clear delineation of the structural importance and complicated workmanship of the latter might not be sacrificed. It will be seen from the plan that the central mortices of beam 4 coincide with those in beam 3 below them. This observed. coincidence. itwill be is $_{
m not}$ mathematical should be borne in mind that wedges adapted to the actual area of coincidence of the mortices would, in the case of beams of this size and weight, join them more securely than larger wedges fitting exactly into two coincident mortices. One of the wedges was recovered. It was 35 cm. long and the upper surface measured 18 by 8.5 cm. It is thus much smaller than any of the mortices and must have been used in the way which has just been suggested.

The purpose of beam 4 is open to speculation. There is no reason to doubt that it was specifically designed for its position, in which case, on the analogy of the side beams of the dam and wheelhouse, the two outer mortices must have held upright posts with central vertical grooves, at least on their inner faces, to hold an upright board stretching between them, the lower edge of which rested in the groove of the beam itself. The central part of this board would have closed the narrow south end of the dam and would probably have incorporated in it some sort of a small sluice gate by which the water from the dam could be admitted to or cut off from the trough as necessity required. This cannot, of course, have been the sole function of beam 4 since to suppose it were would leave the greater portion of it, to east and west of the narrow funnel of the dam, unaccounted for. The necessity for these apparently superfluous extensions of the beam and its upright board to either side can, however, be readily explained. only way to stop the mill working was to cut off the supply of water to the wheel by closing the sluice in the end of the dam. Some provision had then to be made for the escape of the surplus water from the dam and this may have been effected by opening another sluice to east or west alongside beam 4 to allow the water to fall into a side channel by-passing the wheelhouse and joining the tail race at a lower level. One of the extensions of the board would have formed one wall of the beginning of this channel.

extensions of the board may have been in use since there may well have been two sluices, one on each side of the dam, one for normal use and the other as a supplementary for use in times of flood.

THE TROUGH.

The trough was a chute to conduct the water from the dam to the wheel. It was hewn out of a single balk of timber and increased slightly in width from north to south. Its sides internally and externally were vertical and the bottom flat. It was 420 cm. long, 52 cm. wide at the north end and 60 cm. at the south. Although the ground on which the trough lay sloped very gently from north to south the main impetus of the water from dam to wheel was supplied by the internal configuration of the trough itself. Thus the thickness of the floor decreased rapidly from the north end to the centre, the height of the side walls rapidly increasing in proportion. This will be more easily understood by referring to the elevation and sections given in the plan than from any verbal description. At a point about 335 cm. from the north end the trough attained its maximum dimensions, being here 60 cm. wide externally and 50 cm. internally at the top, 38 cm. high and 28 cm. deep. The south end had, unfortunately, been damaged by a field drain recently laid which cut through its sides at that point.

A puzzling feature of the trough was a number of holes bored perpendicularly into the upper edges of its two sides, three in the east and two Only one of these holes was complete, in the sense that it represented the original boring. With this exception they were all more or less semi-circular in plan, with a vertical section of the hole appearing on the inner face of the side of the trough. The intact example was that in the east side lying third from the north end and it was 5 cm. in diameter and 7 cm. deep. The adjoining hole was 7 cm. in diameter and 11 cm, deep, while the remaining one on this side was 5.5 cm. in diameter and 9.5 cm. deep. Of the two in the west side that to the north was 5 cm, in diameter and 10 cm. deep, the corresponding measurements for the other being 5.3 cm. and 10 cm. This last hole was filled with the stump of a wooden peg which, like the hole itself, had also been sectioned vertically. This sectioning of the holes and the peg seems to indicate that when the holes were originally bored the walls of the trough were thicker, that each cavity was completely surrounded by wood, that large pegs or dowels were driven into the holes for some purpose and that, at some subsequent time, the walls of the trough were thinned down on the inside thus cutting into the sides of the holes and of at least one of the pegs which had remained in place. Two questions present themselves: what was the original purpose of these holes and what was the reason for their later mutilation? It might be surmised that they were intended as guides for the adzeman who hollowed out the trough, especially if he were working with the vessel heeled over on its side. When the tool broke into the holes he knew that he had gone far enough. The

writer, however, does not believe that such guides would be necessary for a competent craftsman or foolproof for a bad one and, in any event, the suggestion takes no account of the peg found in one of the holes. It seems more probable that the holes were intended to accommodate dowels the upper part of which projected into answering holes in the lower edges of planks which gave added height to the sides of the trough at the point where they were lowest and where the inrush of water from the sluice would make them very necessary if a considerable quantity of it were not to run to waste over the sides of the trough. Why and how the holes came to be cut into as they are, whether intentionally or by bungling, it is impossible to say, but even in their present condition they would, with tightly fitting pegs which were kept constantly swoollen with moisture, give enough anchorage to the bottom of a plank which was, at the same time, supported by some means from the outside.

Alternatively, the dowels may have held in place a wooden cover for the trough similar to those found at Knockrour and Kilmagar.

Of the peg-holes referred to under beam 3, that to east was 6 cm. in diameter, 13 cm. from end of trough and 4 cm. from its upper edge; corresponding measurements for western one being 4, 19 and 10 cms.

The trough was supported by transverse beams below it at each end. That at the north end, beam 5, was somewhat asymmetrically placed. It was a rectangular plank 187 cm. long, 40 cm. wide and 18 cm. thick, with surfaces remarkably smooth and true. A small piece of wood, not shown in the plan, 55 cm. long, 13 cm. wide and 5 cm. thick had been placed between the base of the trough and the plank to adjust the former to the requisite height. The beam at the south end ran at right angles to the axis of the trough (beam 6). It was 38 cm. wide and 24 cm. thick. To the west it extended for a distance of 144 cm., but the full length of its eastern extension was not followed. To accommodate the end of the trough a large rabbet 75 cm. wide and 13 cm. deep had been cut in the upper surface of the beam, the trough overshooting the south edge of this for a distance of 22 cm. A dovetail mortice 25 cm. long, 25 cm. wide at its closed end and 19 cm, wide at the open end had been cut in the upper surface of the beam on its north edge at a distance of 41 cm. from the rabbet on its west side. What, if any, purpose this could have served it is impossible to say with certainty. It may be that it is one of a pair originally intended to house the ends of the side beams of the wheelhouse in a fashion similar to that by which the ends of the dam beams are tenoned into beam 3 but that, for some reason, this plan was dropped and the beam set without reference to the original scheme so that the mortice now faces away from instead of towards the wheelhouse.

THE WHEELHOUSE.

(Pl. II, 2).

This was the understructure of the mill building proper and the place where the wheel was set up. It closely resembled the dam in the main features of its design but was much less carefully made. Indeed, it had such a patched and haphazard appearance when compared with the dam that one was forced to the conclusion that it had been repaired, if not remodelled, at some time in its history. As found it was a narrow channel c. 460 cm. long, increasing in width from north to south. At the north end its width was 100 cm. externally and 68 cm. internally; at the south end 148 cm, and 100 cm, respectively. Like the dam its sides were delimited by long beams grooved and mortised after the same pattern and approximating closely to them in dimensions. The east beam (8) was 480 cm. long, 20 cm, wide and 17 cm, thick; the north beam had almost identical measurements. Both beams had median grooves on their inner and upper faces and the upper faces of both were pierced by three mortices. Four of the mortices, G, H, J, K, were rectangular in plan and section, 24-20 cm. long, 14 cm. wide and 14 cm. deep. The two at the south ends of the beams, I. L. resembled those in the north ends of the dam beams, C. F. and obviously fulfilled a similar purpose.

The function of the mortices and grooves in the beams both of dam and wheelhouse is explained, as has already been mentioned, by the remnants of posts which were found still standing in two of the mortices, J and K of beam 8. That in J was the better preserved. (Pl. IV, 2). It remained to a height of 45 cm. Its base was pinned in the mortice by a peg entering it through a hole in the inner side wall of the mortice itself. The post was rectangular in section measuring 17 cm. north-south and 12.5 cm. east-west. Down the centre of the north and south sides of the post ran a groove, more or less semicircular in plan, 7 cm. wide and 5.5 cm. deep. The groove on the north side of the post housed the end of a board (board 2) which rested with its lower edge in the upper groove of beam 8. This board was 182 cm. long, 28 cm, high and 5 cm, thick. Its upper edge had a groove running its whole length, 3 cm. wide and 3.5 cm. deep, as if to house the lower end of a board which originally rested in it. The vertical south end of this second board would, of course, have fitted into the upward extension of the groove in the now missing upper part of the post.

The fragment of post still standing in K had its base similarly pinned and remained to a height of 40 cm. Its section was rectangular, 19 cm. north-south and 12 cm. east-west. Unlike the other post this was grooved vertically on one side only, the north. The groove was 8.6 cm. wide and 7 cm. deep and in it was supported the end of a second board (board 1), the lower edge of which sat in the upper groove of beam 8. This board was broken and, in the state in which it was found, did not reach the full distance to post 2, as it almost certainly did originally. The part remaining was 120 cm. long, 31 cm. high and 2.3 cm. thick.

No remains were found in mortice L but its peculiar shape together with the ungrooved south side of post 1 can be interpreted only if we suppose that L held the base of a sloping strut the other end of which was butted against the flat south face of the post. Besides stabilising post 1 this strut could have been adjusted to tighten boards 1 and 2 in their grooves thus ensuring that the whole east wall of the wheelhouse was firm and rigid.

We must visualise the west side of the wheelhouse as having a similar wall supported by posts in mortices G and H. Cross ties connecting the opposite posts would undoubtedly have formed part of the support for the floor of the upper building which housed the millstones and provided the working space for the miller. A building planned merely as an upper storey to the wheelhouse itself would, of course, have been impossibly small, and it must have had additional supports to east and west of the wheelhouse area but of these no trace was found.

The wheelhouse floor, in contrast with that of the dam, presented a makeshift appearance. It consisted of three longitudinal and one transverse plank supplemented by part of a stone flag. One of the planks (9) ran from under the end of the trough for nearly the whole length of the west side of the floor. It was 400 cm. long, 35 cm. wide and 5 cm. thick. Its western edge lay at a distance of about 10 cm. from the inner face of beam 7. Plank 10 ran from under the end of the trough for a distance of c. 180 cm. along the eastern side of the wheelhouse. It was 28 cm. wide and its eastern edge was housed in the side groove of beam 8. Plank 11 continued the line of plank 10, from which it was separated by a large flat slab of stone of irregular outline, and was 120 cm. long and 30 cm. wide and its eastern edge, also, was housed in the side groove of the adjacent beam. The transverse plank 12 overlay 9 and 11 and had its ends jammed in the side grooves of the two beams. Its dimensions were: length 180 cm., width 21 cm. and thickness 2 cm.

PIVOT STONES.

No stratification could be observed at any point either in the dam or wheelhouse. The upper layer of fill consisted of a wet mass of bog stuff which, due to the ploughing and digging which had been done on the spot in the course of the preliminary investigations, was exceedingly mixed. The floors of dam and wheelhouse were covered with a scatter of loose stones apparently washed in, with a thin layer of sand and gravel on the bottom. Among the stones in the wheelhouse were four, two of which are certainly the pivot stones of a horizontal mill and the others possible rough-outs for the same. (Fig. 5). Particulars of these are as follows:

1. Consists of about half of the original stone which was an approximately circular lump of carboniferous sandstone, roughly flat on top and bottom, 11.5 cm. high, 15 cm. in diameter. On each of these flat faces is a conical round-bottomed hole. One of these is 5 cm. in diameter and 3.2 cm. deep, the other is 4.5 cm. in diameter and 3.2 cm. deep. The sides are smooth except where a chip has been knocked out of the larger one. As the stone has broken nearly down the centre a vertical section of the holes

appears on the broken face. It is obvious that, when the gudgeon at the bottom of the shaft had worn so deeply into the stone that the shaft itself had descended dangerously near the stone, the stone was turned upside down and the gudgeon set in a fresh hole on the new face. The stone had broken exactly where one would have expected it to fracture under a vertical load.

PIVOT STONES. HORIZONTAL MILL Morett, Co. Laoighis FIG. 3 Plan FIG. 2 Plan FIG. 1 Elevation Elevation Elevation FIG. 4 Scale Elevation Fig. 5.

2. Consists of about half of the original piece of carboniferous sandstone which has split down the centre leaving half of the socket in which the

gudgeon of the shaft revolved. The remaining portion of stone is 13 cm. long, 14 cm. wide and 10.5 cm. high. The socket is more or less centrally placed and was a hemispherical depression 5 cm. in diameter and 2 cm. deep with smooth and faintly horizontally striated sides. The bottom of the depression is highly polished.

- 3. An oval lump of carboniferous sandstone 24 cm. long, 18 cm. wide and 10.5 cm. high. The upper surface is naturally flat, the bottom may have been artificially levelled by coarse hacking. In the upper surface at its centre, is a roughly circular depression with sloping sides. It is 3.5 cm. in diameter and 1.5 cm. deep. The hole may be a rough-out for a socket for a gudgeon but has never been used.
- 4. A roughly rectangular block of laminated shale, 35 cm. long, 21 cm. wide and 8 cm. high. In the centre of one of the flat faces is a circular, nearly flat-bottomed depression with sloping sides. It is 6 cm. in diameter and 2.3 cm. deep and although tolerably regular in shape it shows no sign of wear and may, conceivably, be a discarded rough-out for a pivot stone.

OTHER FINDS.

Apart from the pivot stones only two other objects were discovered in the course of the excavation. One was portion of a small whetstone. It was 7.9 cm. long, roughly square in section, 20 mm. by 16 mm., and was pierced near one end by a small suspension hole. On one face was a number of shallow longitudinal scrapes caused, no doubt, by the point of an awl being sharpened on it.

The other find was the skull of a horse which lay on the clay near the western end of beam 5. The writer regards its presence as purely accidental and attaches no significance, ritual or superstitious, to it.

LEVELS.

The floor of the dam rose slightly from north to south, being about 10 cm. higher at the latter end than at the former. This was, in all likelihood, accidental. If deliberately contrived it could only have been intended to encourage the deposition of silt and heavy washed-in material at the end of the dam farther from the sluice but it is doubtful if anything would have been achieved by a rise as small as this. The difference in level between the north end of the trough and the wheelhouse floor was about 50 cm. (Fig. 6).

Discussion.

While the pivot stones must be regarded as conclusive evidence that the structure is a mill of the horizontal type certain minor difficulties in the way of this interpretation must be faced. Before discussing them, however, it may be more profitable to try to visualise the structure as it must have been when in working order.

No trace of a channel could be observed leading from any direction towards the dam and, as a result of the drainage operations carried out there, it is difficult to picture the original topography of the place. At the moment there are two watercourses running parallel and close together past the site to the south-west, the nearer approaching to about 30 feet from it. The present lineaments of both these are obviously almost wholly artificial but it is impossible to say to what extent one of them may be a natural streambed. At all events, it is almost certain that the mill was worked by an artificial race and not by some now vanished natural stream. To feed the race either of two sources must have been tapped: a neighbouring stream, now possibly represented by one of the drainage channels, or the large well or pond known as Toberkine which lies about 1,200 feet distant to the west. A race leading from either, supplemented by seep water from the bog through which it passed, would have afforded enough water for the mill.

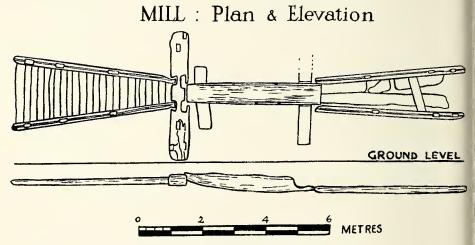


Fig. 6. Morett Mill: Plan and Section.

It is probably safer to assume that the bog was deeper at the time of the building of the mill than it is now since it must have shrunken considerably as a result of the recent drainage works which, it is likely, were not the first of their kind carried out there. We must imagine, therefore, a channel cut through the bog to the dam, the floor of which rests on the underlying clay below the peat. The wooden walls of the dam would probably have risen not much higher than the level of the top of the bog, their main function being to prevent the collapse of the peat banks into the dam itself. The pressure of water within would probably equalise the pressure of the bog outside but it is likely that additional security was given by cross ties connecting each pair of opposite posts. The narrow end of the dam must have been closed by a board sitting in the upper groove of

beam 4 and held upright by grooved posts standing in its outer mortices. Directly in front of the northern end of the trough this board would have been equipped with a small sluice through which the water was admitted to the trough and cut off as required.

When it was desired to set the mill working the sluice was opened and the water ran down the trough into the wheelhouse. It is here we encounter our first difficulty. Unless we make the unnecessary supposition that there was an addition to the trough the only place for the horizontal wheel would have been immediately in front of the end of the trough. The space between the side beams is here reduced to its narrowest, a width of 68 cm., which means that the maximum possible diameter of the wheel would be somewhat less than that, or about 28 inches. At first sight this seems excessively small but it must be remembered that the Moyeraig wheel is only 39 ins. in diameter and that the size of the millstones could be adapted to the power which the wheel was capable of supplying.

The chief difficulty is, however, not the size of the wheel but the shape of the end of the trough. If used as it was found the water from the trough would have struck both sides of the wheel at once, there being no room for an asymmetrical position of the wheel, and produced no motion whatever. We must therefore, imagine some device by which the mouth of the trough was constricted and the exit of the water diverted to the left or east side and forced thereby to strike the left side of the wheel with increased force.

The troughs from Knockrour, Co. Cork, and Kilkenny Castle had one closed end which was pierced by a hole to one side. Although the Morett trough was damaged by the field drain at this critical point nothing was observed which would lead one to believe that it ever had a solid end. But there is no reason why the end of the trough should not have been closed by a separate piece of wood firmly wedged in place and pierced by a hole at the appropriate position. Such a closure properly made would be just as effective as a solid end. On the basis of this suggestion any difficulties arising out of the possible position of the wheel can be disposed of.

It is regrettable that no dating evidence came to light in the course of the excavation. On general considerations the mill can hardly be less than several hundred years old and, in all likelihood, is much older. The writer has been unable to discover any documentary references to the existence of a mill in the locality nor any memory of it beyond a vague tradition of a mill, not in this spot, but in a neighbouring field.

MILL RACE, KILMADEMOGE, CO. KILKENNY.

In October, 1952, the writer inspected a very curious feature in the townland of Kilmademoge, Co. Kilkenny. It lies about 500 feet south-east of the ruined church of Kilmademoge, which stands conspicuously on the summit of a small hill, and consists of a wide deep trench forming the chord

of a bend in a small stream. The trench runs approximately N.E.-S.W., is over 700 feet long and, perhaps, 12-18 feet wide at the top. It is rock cut in places and appears to be about 15 feet deep in some spots. The cutting is crossed in two places by earthen causeways but these are probably comparatively recent erections for bringing cattle or carts across it. There is a local tradition that a mill was formerly situated here and if the cutting is not a mill race it is difficult to imagine for what purpose it was made. At the point where the cutting leaves the stream a small dam could be easily built to divert the water into it and, indeed, it might be permissible to interpret some loose stonework there as the remains of such a dam. the cutting was choked with an impenetrable growth of bushes for virtually its whole length a close examination was not feasible and it is in consequence impossible to say if at any point there is anything which might be regarded as the remains of the mill itself. It has been thought advisable to place this site on record since it may be one of the ancient mill races discussed later and the site of a mill of the horizontal type. Although no survey was carried out the following co-ordinates are approximately correct: Kilkenny O.S. sheet 14: N.W. end of cutting, 61 cm. from west, 38.4 cm. from south; S.E. end of cutting, 60.5 cm. from west, 36.4 cm. from south.

ARD WEST MILL, CO. GALWAY.

I am indebted to Mr. Domhnall O Cearbhaill, Glasnevin, Dublin, for the following information about this and the next mill in Co. Galway, both of which were of the horizontal type. The first of these was situated at the southern end of Mill Lough, on the borders of the townlands of Ard West and Cuilleen, near the head of Ard Bay, to the west of Carna. visited the site in 1934 in the company of Pádraic Mac Con Iomaire, a native of the district and a seanchaidhe of exceptional gifts. was born in 1869, had often got meal ground at the mill and was quite familiar with its mechanism. It was working until 1900, or a little later. From his description of it Mr. O Cearbhaill was able to reconstruct a model of it although he had never heard of a mill of this type before. ing description is based on Pádraic Mac Con Iomaire's account and includes his Irish terms for the various components. The mill wheel (roth a' mhuilinn) consisted of a wooden stock (mol) into which were fitted paddles (liagháin). The water from the mill race (sruth a' mhuilinn) struck the liaghain and caused the mill to turn. The amount of water was regulated by a sluice (comhla uisce). A lever (deis tógála) under the head of the stock regulated the coarseness or fineness of the meal and it was kept in place by a wedge (ging). Above the stones was a hopper (crannog) from which the corn was fed and a low fence around the stones kept the meal from scattering.

According to Pádraic Mac Con Iomaire there were formerly many mills of this kind in Conamara. This mill, now ruinous, is marked on O.S. Galway, sheet 76, in the position indicated above.

UGGOOL MILL, CO. GALWAY.

This mill is in the townland of Uggool, a mile south-east of the village of Moycullen, Co. Galway. It is situated on the Lough Kip river which flows into Ballycuirke Lough and is marked on O.S. Galway, sheet 81. Mr. O Cearbhaill visited it in 1937 and was told by the owner that the mill had been altered about 1905 before which date it had been a mulleann ton letalamh or horizontal mill.

ERRIS MILLS, CO. MAYO.

M'Parland (30), writing in 1801 of the half barony of Erris, has a brief reference to horizontal mills there: "Here are some gig-mills, and querns or hand-mills."

FURNACE MILL, CO. MAYO.

Mr. Pádraig Ó Móráin, Mulranny, Co. Mayo, has very kindly made enquiries about a horizontal mill formerly working in the townland of Furnace, Co. Mayo. It is marked on O.S. Mayo, sheet 67, and has been disused for over 75 years, the last owner having been a Thomas Mullen. The walls still remain but in a very ruinous condition. No further information about it could be obtained and no one could be found who remembered it working.

CLUAIN AODHA MILL, CO. MAYO.

A reference in a folk story recorded in 1941 from Séamus Muilleóir, aged 73, in Tourmakeady, helps to confirm the impression that Co. Mayo was the last district in Ireland where horizontal mills were to be found in numbers: "Bhí fear 'n-a chomhnuighe i gCluain Aodha a dtugaidís Peaitsaí Sainséal air, agus bhí muileann beag nó gig mill aige" (31). Cluain Aodha is in the Partry area.

DISCUSSION.

Having thus briefly surveyed the material evidence relating to this type of mill in Ireland it remains to see how far the additional information from new discoveries reproduced here sustains previous conclusions and warrants fresh ones.

The literary evidence has been dealt with by O'Donovan, Petrie, Joyce and, to some extent by Curwen, and will be referred to in detail here only as the occasion arises. It is enough to say that references to mills occur in the Brehon Laws, in the lives of the saints and in some secular texts.

Virtually the only mechanical details of mills available from old Irish literature are the "eight" parts of a mill, already mentioned, which are enumerated in the Laws (32). These are: topur (the well), tuinide (the mill-race), tir linde (the land of the pond), liae (the upper millstone), mol

(the shaft), indeoin (the lower millstone), herintiu (the gudgeon or the pivot-stone?), oircel (the paddle-wheel or the trough?), milaire (the spindle?) cup (the rynd or the hopper?) and comla (the eye of the upper stone or the sluice gate?).

The meaning of some of these terms is obscure as is also that of some of the later glosses which purport to explain them and their discussion belongs to linguistics rather than to archaeology. Curwen, with the help of Professor D. Binchy, has dealt with them in some detail (33). The writer has no competence to enter into a controversy based on linguistic studies but there are some points on which opinions at variance with those advanced by Curwen may be ventured without trespassing into philology.

The first is the identification of the herintia (recte ermtiad) with the stone gudgeon on which the shaft spun. The gloss on this is clear: "the little stone which is under the head of the shaft, and on which the shaft turns", the only ambiguity being whether this refers to the stone gudgeon in the end of the shaft or the pivot-stone in which the gudgeon sits. Curwen, while noticing the possibility of the latter application, rejects it in favour of the gudgeon on the strength of the Moycraig wheel in which such a gudgeon was preserved. Against this view it can be reasonably urged that it is very unlikely that the insignificant gudgeon, firmly fixed in its shaft and normally invisible, would have been singled out for enumeration as a separate component of the mill while the more obvious pivot-stone, in itself a distinct entity, would have been ignored. To the writer's knowledge only five indentifiable pivot-stones have been found in the country: that from Killinchy mentioned by MacAdam, that from Ardmore described by O'Reilly, and that from Ballyshannon together with the two certain specimens from Morett, all described in the present paper. Of the Killinchy example no measurements appear available but none of the remainder can, by ordinary standards of speech, be described as large and all would fit in with the "small stone" of the ancient writer, whose use of the word "small" most likely originated in a conscious or unconscious contrast with the larger millstones which he had just mentioned. Besides, if ermtiud also and primarily means a spear-butt the transference of the word to the pivot-stone rather than to the gudgeon would seem more justifiable since the spear shaft with its expanded ornamental butt would bear a closer resemblance to a mill shaft standing on its pivot-stone than to the same shaft with only the small gudgeon projecting from is base.

The second point is Curwen's identification of the oircel with the paddles of the wheel. Oircel literally means trough and, again arguing from the Moycraig wheel which has dished paddles, Curwen maintains that the word applies to them. On the other hand, the occurrence of large wooden troughlike chutes up to 14 feet long is so frequent at the remains of these mills that their presence alone is sufficient to establish the nature of the sites. Such troughs are attested from Banagher, Killyscolban, Smithstown, Kilmagar,

Bantry, Mallow, Muskerry, Donaghmore, Ballindeasig, Inchidoney, Kilnagross, Kilkenny Castle, Knockrour and Morett, i.e. at fourteen out of the total of twenty-five places where the actual remains of mills were discovered. While, unfortunately, none of the sites yielded any evidence which would date it to times contemporary with the compilers of the Laws many of them are undoubtedly ancient and there is no reason to suppose their mechanism differs in any major detail from the type in the minds of the ancient writers. We may take it that such troughs were always a feature of such mills and it seems extraordinarily unlikely that such a conspicuous and essential component of a mill would have been capriciously omitted from a legal schedule of its parts which included such a relatively insignificant item as the ermtiud (be it pivot-stone or gudgeon). It appears, therefore, better to accept oircel as referring to the trough or chute of the mill and not to the paddles of the wheel especially as this attribution does no violence to the literal meaning of the word since the wooden chutes about which we have details are very trough-like objects indeed.

Moreover, if oircel means a paddle it is difficult to see why it is not used in the plural in a context which so obviously calls for it. The 11th century tale of Togail Bruidne Da Derga, which was probably first written down in the 9th century, uses the word sciath in the plural in an undoubted reference to the paddles of a millwheel: Cosmail fri mol muilind cona sciathaib agus a chendraig agus a irmtiud (34). It is much more likely that the standard term for a paddle was a word with an obvious application like sciath rather than one with a forced meaning like oircel.

The supporting reference for his interpretation which Curwen quotes from the tale of Fled Bricrend: "a mill of ten oircel" (muilend dec forcel) (35) may just possibly illustrate a secondary use of the word as applied to the paddles of a millwheel but an obvious rendering, in keeping with the hyperbolic tenor of the passage where it occurs, is that the phrase is a verbal extravagance meaning "a mill of ten chutes", to convey an impression of enormous speed and power. In an age and place where the mill was the only automatic machine in existence its symbolic appeal to the imagination must have been irresistible and it is not surprising to find it the subject of that numerical, exaggeration characteristic of the heightened language of many passages of Old Irish literature.

A third objection can be advanced against Curwen's analysis of this passage from the Laws on the grounds of his assertion that the ancient Irish mill was equipped with a hopper by which the corn was automatically fed between the stones, his argument being based on the part which is called cup in the text. The original wording of the gloss which purports to explain cup appears to be uncertain and the translation of it controversial and, to say the least, an identification of cup as "hopper" on the strength of it is extremely problematical. In a footnote Curwen alternatively suggests that cup is the rynd of the upper stone, being a loan-word from Lat. cupa, the cross-bar of an olive press. The balance of the evidence would, therefore,

seem to indicate that the Senchus Mor data provide no grounds for believing that the Irish mill had a separate hopper. A passage from the Lives of the Saints supports this view. In a versified life of St. Senan (36) we are told that three robbers approached the monastery mill by night and, on looking in, were astonished to behold Senan sitting writing while an angel in the shape of a comely youth stood attending to the mill. In a preceding passage it is related that although Senan worked in the mill by night as well as by day he never requested a supply of candles from the monastery store (37). A messenger dispatched to investigate the mystery peeped in through the mill window and found the saint standing and praying, and carrying out his duties as miller by the light which shone from the fingers of his left hand. From these two incidents it is apparent that it was essential for the person in charge of the grinding to stand and give it his continuous attention. As the collection of the meal would not entail this it must imply that the corn had to be fed by hand into the eye of the stone. Such unremitting labour would have been unnecessary had the mill been provided with a hopper agitated even by the rudimentary device already described in connection with the Scandinavian mill.

In passing it should be noted that arguments based on translations of technical terms in Irish and other texts without reference to the originals can be very misleading. The translator may, very naturally, have not fully understood them or have rendered them by only very approximate equivalents. The translation of the above passage from the Senchus Mor is a case in point and another occurs in Plummer's translations of his Irish versions of the lives of the saints. In the life of St. Berach it is said that the saint "put his corn into the hopper of the mill." (38). This might be incautiously used as an argument for the existence of hoppers in ancient times but the Irish text is: "dorad a arbhar i mbel in mhuilinn" (he put his corn into the mouth of the mill). (39). The use of the word "hopper" here to describe the funnel-shaped eye of the stone is legitimate enough but it does not mean an independent wooden hopper suspended above the stone.

The Laws also contain a tract called Coibnius Uisci (Right of Water) (40) which deals with the leading of water to mills and the complicated rights to the use of the mill of the owners of the land through which the water was drawn as well as of the owner of the mill himself. The impression left by the tract is that it was a normal procedure to erect these mills, not directly on streams, but on races drawn from rivers and wells, an impression strengthened by a number of incidents related in the Lives of the Irish Saints. In the life of St. Mochua (41) it is told that he came on a visit to Fore, Co. Westmeath, where St. Fechin had built a mill in a spot where there was no water to work it. The two saints set out for a lake some distance off where they thrust their staffs into the shore nearest the mill, causing the water to leave the lake by an underground course and break out at the mill which was forthwith put into action. The same story, omitting the assistance of Mochua, is related in the life of St. Fechin (42). In the light of the law

tract above it is evident that the hagiographer accepted the leading of water to the mill as a routine practice and was concerned with stressing the miraculous method by which it had been accomplished and not the novelty of the idea.

The archaeological evidence bears out strikingly the impression gained from the literature that the practice was to build the mills on races rather than on streams for in the majority of instances about which we have reliable data, including Morett, Killogrone, Knockrour and Fahan, the mills were near but not on the streams which must have supplied them.

This method has, of course, obvious advantages. If the mill is situated directly on the stream there is an ever present risk of serious damage to, or the total destruction of, both dam and building by floods, and erection and repair must be carried out under conditions more or less inconvenient. If the mill is supplied by a race the water can be shut off by a sluice-gate in time of flood while the actual building can be done on dry ground and repairs similarly effected with the minimum trouble.

Finally, we come to the term comla. O'Donovan brackets cup and comla together and translates the combination as "hopper", which must be an error; while Curwen, mentioning that comla literally means the valve of a door, maintains that it is the eye of the upper stone into which the grain was fed. But we must remember that the ancient writer is enumerating the parts of a mill and not particularising parts of the parts. The oircel, as we have seen, is not a paddle, i.e. a part of the wheel, but the trough, i.e. a separate part of the mill, and the ermtiud, it is probable, is not the gudgeon, i.e. another part of the wheel, but the pivot-stone, i.e. another separate component of the mill. It seems logical, then, to treat the comla as an important part of the mill itself and not as a comparatively minor feature like the eye of the upper stone. As in the case of oircel, a consideration of the material remains, the wooden dams found at so many of the mill sites, immediately suggests the correct interpretation. The comla can be nothing else than the sluice gate by which the water was admitted from the dam to the trough. If there were still any doubt of this, modern evidence must finally dispel it for the living Irish word for the sluices of mills of this type still working in the beginning of the present century was combla. This is recorded in the account of the Ard West mill given above and also in Knox's list of Irish terms appended to his description of the two Mayo gig mills (43). In justice to Curwen, of course, it must be pointed out that he could not have known of the first instance cited and was, apparently, unaware of Knox's article.

One of the most interesting features of the Irish horizontal mill has been pointed out by Curwen (44) and is that in all the examples in which we have any evidence of the nature of the wheels the paddles are hollow or dished. The paddles of the wheels from Moycraig, Killinchy, Milverton and Banagher,

Co. Derry, were all of this type. (Pl. I, 2). Moreover, this remained the traditional type in the country to the last for the two mills at Cullentragh and Meeltraun, described by Knox, were equipped with them also, a fact which, although it was apparently unknown to Curwen, lends much additional weight to his observation. This is also the Mediterranean type of wheel, being vouched for in N. Spain (45), Mounts Lebanon and Carmel (46), on the Dardanelles (47) and Salonika (48). On the other hand, the Scottish and Scandinavian mills lack the refinement of these hollow paddles and are provided instead with simple flat vanes, upright or oblique. This fact establishes a close relationship between the Irish and Mediterranean mills, the Irish ones being the most northerly extension of the type.

Knox states that this type of wheel is best adapted to a jet of water delivered horizontally on to it, as was the case in the better of the two mills he describes, and characterises the introduction of a chute with an inclination of 30°-40° in the other as a mistaken innovation leading not only to considerable loss of energy but to positive damage to the wheel since the rush of water tended to beat the paddles downwards and tear them out of their Without necessarily accepting this theory as correct it is worth considering as being, in all probability, the prevalent local theory and consequently a reflection of local practice. It certainly seems true that none of the Irish sites provides conditions for a fall of water to the wheel at all comparable with that given by the steep flumes on many both in S. Europe and Scandinavia. If such a fall had been deemed necessary no mill would ever have been built in Morett and, indeed, the general practice of placing the mills on artificial channels increased the difficulties of supplying such a fall. It must be concluded that the Irish mills were designed to work with a much less powerful jet of water than was normal in such mills elsewhere and were, in consequence, less efficient in output. Efficiency is, however, a very relative thing and they belong to an era when time was a less merchantable commodity than it is today.

A final observation on Irish mills is the excellence of their construction. Some incidents from the lives of the saints imply that their erection was the task of specialised millwrights. In the life of St. Mochua artifices et fabri are mentioned in connection with the building of a mill (49) and the life of St. Fechin relates that a special craftsman had to be engaged to construct one: "Quesito vero quodam artifice pro molendino construendo, et invento, opus usque ad finem complevit," (50) and he is later styled a carpentarius. Such remains as have been discovered prove that skill far beyond that of a mere handyman was called for. The Moycraig wheel is an accomplished piece of carpentry while the Morett mill was a skilfully and coherently planned structure carried out with excellent craftsmanship. Their existence, incidentally emphasises the loss of many skills and techniques suffered by the Irish rural population as a result of the destruction of the native woodlands in the 16th and 17th centuries and its social submergence in the 18th and 19th centuries.

ACKNOWLEDGMENTS.

In addition to those mentioned in the course of the article the writer wishes to return his sincere thanks to the following persons: Rev. Professor F. Shaw, S.J., U.C.D., for help with the Law texts; Mr. Thomas Hoyne, Webbsboro', Co. Kilkenny, for showing me over the Kilmademoge site; Mr. Philip Duff, his friends and neighbours of Morett, Co. Laoighis, for help and hospitality at that site; Mr. D. O'Shea, Killogrone, Co. Kerry, for permission to inspect the Killogrone mill; Professor H. J. Seymour for the mineralogical identifications; Mr. G. F. Mitchell, F.T.C.D.; Miss Helen Roe, Dublin; Miss Rigmor Frimannslund, Norske Folkemuseum, Bygdøy; Mr. Tadhg Ó Murchadha, Waterville, Co. Kerry; Mr. Seán Ó Súilleabháin, Irish Folklore Commission; Professor M. J. O'Kelly, U.C.C., Mr. R. de Valera, Ordnance Survey, who all kindly replied to various queries; and to Miss A. R. Birmingham, Assistant Secretary, R.S.A.I., for much valuable assistance in the preparation of the manuscript.

THE HORIZONTAL MILL IN IRELAND

(For abbreviations see below)

LIST OF KNOWN OR PROBABLE SITES OF HORIZONTAL MILLS

County		Place			Reference	
Antrim Derry			Moyeraig Banagher			U.J.A., Vol. 4 (1856), pp. 6-15. Stokes, William. The Life and Labours in Art and Archaeology of George Petrie. London, 1868, pp. 125-126.
Derry Down			Killynumber Newtownards dis	trict		O.S. Letters, Derry, p. 224. Harris, Walter. The Antient and Present State of the County Down. Dublin, 1744, p. 268 and U.J.A., Vol. 4 (1856). pp. 6-15.
Down Down Dublin Carlow			Killinchy Killyscolban Milverton St. Mullins			U.J.A., Vol. 4 (1856), pp. 6-15. Do. do. J.R.S.A.I., vol 2 (1858-9), p.252. J.R.S.A.I., 22 (1892), pp. 377-388, and J.R.S.A.I
Kildare Kilkenny			Lodge Park Bramblestown			23 (1893), p. 211. T.K.A.S., 1 (1849–51), pp. 154–164. Do. do.
Kilkenny Kilkenny Kilkenny Kilkenny			Smithstown Kilmagar Ballymartin Kilkenny Castle		,	Do. do. Do. do. Do. do. <u>J.R.S.A.I.</u> , 6 (1860–61), pp. 347–348.
Kilkenny Laoighis Laoighis Cork			Kilmademoge Timahoe Morett Bantry			This article. T.K.A.S., 1 (1849-51), pp. 154-164. This article. T.K.A.S., 1 (1849-51), pp. 154-164.
Cork Cork Cork Cork			Mallow Muskerry Donaghmore Ballindeasig			Do. do. Do. do. Do. do. Do. do.
Cork Cork Cork Cork			Inchidoney Kilnagross Shanacashel Castlefreke			Do. do. Do. do. Do. do. Townsend, Rev. Horatio. Statistical Survey of the
Cork Kerry Kerry			Knockrour Fahan Killogrone			County of Cork. Dublin, 1810, pp. 272-274. J.C.H.A.S., 31 (1926), pp. 96-101. T.R.I.A., 31, pt. 7 (1899), pp. 252-253. This article.
Galway Galway Galway			Ardoilean Ard West Uggool			T.R.I.A., 31, pt. 7 (1899), p. 308 and J.R.S.A.I., 26 (1896), p. 204. This article.
Mayo Mayo Mayo Roscommon			Cullentra Furnace Cluain Aodha Meeltraun (Denis	 Kelly)		P.R.I.A., 26, C (1902-1904), pp. 55-84. This article. Béaloideas Iml. 11 (1941), p. 188. P.R.I.A., 26, C (1906-1907), pp. 265-273.

REFERENCES

(Abbreviations: P.R.I.A.: Proceedings of Royal Irish Academy; T.R.I.A.: Transactions of Royal Irish Academy; T.K.A.S.: Transactions of Kilkenny Archaeological Society, earlier name of J.R.S.A.I.: J.R.S.A.I.: Journal of Royal Society of Antiquaries of Ireland; U.J.A.: Ulster Journal of Archaeology; P.S.A.S.: Proceedings of Society of Antiquaries of Scotland; J.C.H.A.S.: Journal of Cork Historical and Archaeological Society; O.S.: Ordnance Survey).

Bennett, Richard & Elton, John.—History of Corn Milling. London & Liverpool, 1899. Vol. 2,

5.

Browne, Charles R.—*P.R.I.A.*, 3rd series, vol. 3 (1893–1896), p. 351. See, for example:

See, for example: Dubourdieu, Rev. John.—Statistical Survey of the County of Antrim. Dublin, 1812, p. 562. Coote, Sir Charles.—Statistical Survey of the King's County. Dublin, 1801, p. 33. M'Evoy, John.—Statistical Survey of the County of Tyrone. Dublin, 1802, p. 102. Townsend, Rev. Horatio.—Statistical Survey of the County of Cork. Dublin, 1802, p. 102. Townsend, Rev. Horatio.—Statistical Survey of the County of Cork. Dublin, 1810, pp. 272-274. O.S. Letters, Co. Derry, p. 224. O'Donovan, John.—Dublin Penny Journal. Vol. 1, No. 36, 1833, p. 282. Petrie, George.—T.R.I.A. Vol. 18 (1839), pp. 162-165. T.K.A.S. Vol. 1 (1849-51), pp. 154-164. MacAdam, Robert.—U.J.A. Vol. 4 (1856), pp. 6-15. See also: Harris, Walter.—The Antient and Present State of the County of Down. Dublin, 1744, p. 268.

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See also: p. 268. 14.

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27.

Deering, Michael.—*U.J.A.* Vol. 5 (1857), pp. 91–92.

Wilde, William R.—*A Descriptive Catalogue of the Antiquities in the Museum of the Royal Irish Academy.* Dublin, 1857. pp. 207–208.

Stokes, William.—*The Life and Labours in Art and Archaeology of George Petrie.* London, 1868, pp. 125–126. *J.R.S.A.I.*, 6 (1860–61), pp. 347–348.

Bennett, Richard & Elton, John.—Op. cit., vol. 2, pp. 13–16, 81–83, 86–93.

Macalister, R. A. S.—*T.R.I.A.* 31, part 7 (1899), pp. 252–253.

Macalister, R. A. S.—*T.R.I.A.*, 34, C. (1902–1904), pp. 55–84.

Joyce, P. W.—*A Social History of Ancient Ireland.* London, 1903, Vol. 2, pp. 330–341. *Ancient Laws of Ireland, Senchus Mor.* Dublin & London, 1865. Vol. 1, pp. 124–125, 140–141.

Goudle, Gilbert.—*P.S.A.S.*, 20 (1886), pp. 257–297.

Knox, Hubert T.—*P.R.I.A.* 26, C. (1906–1907), pp. 265–273.

O'Conlon, J. P.—*J.C.H.A.S.*, 31 (1926), pp. 96–101.

Goudle, Gilbert. Loc. cit. p. 270.

Macalister, R. A. S.—*Corpus Inscriptionum Insutarum Celticarum.* Dublin, 1945, vol. 1, pp. 227–229. 29.

31.

32. 33.

34.

35. 36. 37.

38.

Macauster, K. A. S.—Corpus Inscriptionum Insutarum Cetticarum. Dublin, 1945, vol. 1, pp. 227-229.

M'Parlan, James.—Statistical Survey of the County of Mayo. Dublin, 1802, p. 166.
Béaloideas Iml. XI (1941), p. 188.
Ancient Laws of Ireland. Senchus Mor. Dublin & London, 1865. Vol. 1, pp. 124-125, 140-141.
Curwen, E. Cecil.—Antiquity 18 (1944), pp. 139-140.
Togail Bruidne Da Derga, Ed. Eleanor Knott. Dublin, 1936, p. 24.
Fled Bricrend. Ed. & trans. by George Henderson. London, I.T.S., vol. 2, 1899, pp. 66-67.
Colgan, John.—Acta Sanctorum Hiberniae. Vita S. Senani Episcopi et Confessoris, XII, p. 607.
Colgan John. Loc. cit., XI, pp. 606-607.
Plummer, Charles.—Bethada Nāem nĒrenn. Oxford, 1922, vol. 2, p. 26 (21).
Plummer, Charles.—Bethada Nāem nĒrenn. Oxford, 1922, vol. 1, p. 27 (21).
Ancient Laws of Ireland. Brehon Law Tracts. Vol. 4. Dublin & London, 1879, pp. 206-223.
Colgan, John.—Acta Sanctorum Hiberniae. Vita S. Mochvae sine Cronani abb. Ballensis, VI, p. 789. (This life is also printed by the Bollandists: Tom. 1, January. De S. Mochua Ballensi sive Cronano, pp. 47-49. New edition, Paris, 1863).
Colgan, John. Op. cit. Vita S. Fechini Abb. Fovarensis, XIV, pp. 131-132. (Also printed by Plummer, Carolus. Vitae Sanctorum Hiberniae. Oxford, 1910. Tom. 2, p. 81 (xiv).)
Knox, Hubert T. Op. cit., p. 272.
Curwen, E. Cecil. Antiquity 19 (1945), pp. 211-212.
O'Reilly, Joseph P.—P.R.I.A., 24, C (1902-4), p. 75
and
Aranzadi, Telesforo de.—Folklore y Costumbres de Espana. Segunda Edicion. Barcelona, 1931.
Tomo 1, p. 351.
Bennett Richard & Elton, John. Op. cit., vol. 2, p. 11.

42.

43.

44.

46.

Tomo 1, p. 351.

Bennett, Richard & Elton, John. Op. cit., vol. 2, p. 11.

Bennett, Richard & Elton, John. Op. cit., vol. 2, p. 11.

O'Reilly, Joseph P.—P.R.I.A. 24, C (1902-4), p. 72, quoting A. L. Castellan (1772-1838).

Curwen, E. Cecil.—Antiquity 19 (1945), pp. 211-212.

Colgan, John. Op. cit. Vita S. Mochvae siue Cronani abb. Ballensis, VI, p. 789.

Plummer, Carolus.—Vitae Sanctorum Hiberniae. Oxford, 1910, tom. 2, p. 81 (xiv).

J.R.S.A.I. vol. 2 (1858-9), p.252 47. 48.

RATHMACKNEE CASTLE, CO. WEXFORD.

By H. G. Leask, Past President.

To the south-west of Wexford town, seven and a half miles distant from it by way of the road to Kilmore, and in a secluded hollow to the west of that highway, stands the small castle of Rathmacknee. In it, for over two hundred years, lived the main stock of the Rosseter family. But the place was the family's seat for three centuries before the present eastle was built.

What is known of the Rosseters of Rathmacknee has already been set forth in able and well documented articles by the Reverend F. X. Martin, O.S.A., in "The Past," the organ of the Ui Ceinsealaigh Historical Society; articles which are the source from which the following very compressed historical notes have been obtained. They are not carried beyond the XVIth century.

Of Lincolnshire origin, the first of the Rosseters to come to Ireland appear to have arrived in the initial wave of the Anglo-Norman invaders; in the Fitzstephen - de Prendergast ships. They settled in the Barony of Forth, on the south side of the 'mountain,' and remained here, with Rathmacknee as headquarters (and certainly from the early XIVth century) until after the Great Rebellion of 1641. Father Martin points out² that the settlers in Forth and Bargy—unlike those in more northerly parts—were never even partly assimilated into the Gaelic system, the reason being that they intermarried only with the other landed families of their kind in this relatively isolated area. The genealogies of the Rosseters are not only very incomplete, but, in the early period, very obscure. A few references have been found, however. There was a John Rosseter in 1280, and a Gregory—specifically of Rathmacknee—in 1313. Another John was summoned to attend the Lords Justices in 1345 and eleven years later two Rosseters, Robert and Thomas, paid a fine to be released from gaol. In 1364 the same Robert was ordered to attend the Lords Justices and bring men-at-arms and hoblers (light horsemen) with him. He seems to have been succeeded by his son, Sir John. A later John, also a knight, was made Seneschal of the Liberties of Wexford in 1451. Just twenty years later John and his son were summoned to appear before the Irish Parliament to answer an accusation. Whatever the result, it certainly did not prevent Thomas Rosseter being made Seneschal of the county in 1493. The family appears often in the record of Wexford affairs throughout the XVIth century. Thomas was a juryman in 1537 and appeared, with others, before a jury of a later year but received a pardon in 1552. Though staunch adherents of the old religion, the Rosseters, and other landed families of like mind with them, were not disturbed by Henry VIII or Edward VI. They remained loyal to the Crown and acknowledged Philip and

¹ The Past. No. 5 (1949), pp. 103-116; No. 6. pp. 26-44.

² Ibid. p. 106.

Mary, and Elizabeth in due time. John of Rathmacknee was sheriff of the county in 1569 and, in 1573, one of those authorized to muster and array the inhabitants. In 1574 the Rosseters were spoken of as "a family of name and power, faithful to the Queen." Thomas of Rathmacknee left possessions in eight townlands to his four-years-old son when he died in 1592. It was one of these later Rosseters—perhaps John the Seneschal of 1451 or Thomas of 1493—who erected the castle which is the subject of this article. For the subsequent history of the family, and for a fuller treatment of it in earlier times, the reader is referred to Father Martin's accounts.

No trace now remains at Rathmacknee of any buildings of an earlier date than the middle of the XVth century at the earliest, nor any indication of the form of the first manor fortress or dwelling of the Rosseters. The original edition of the Ordnance Survey map (1840), however, shows a fragment of a curving earthwork to the north of the castle at a distance of about 120 feet from the tower. It is an arc with a chord of 350 feet (passing through the tower) and a rise of 120 feet. If completed as a rough circle or broad oval it would, of course, include the castle and at least part of the churchyard adjoining to the south. This work may be part of the original rath from which the place and the two townlands of Rathmacknee Great—in which the castle stands—and Rathmacknee Little, east of it, in which there is still a smaller circular rath. On the other hand, the fragment, now vanished, may be part of the outworks of the XIIth or XIIIth century Rosseter homestead.

The castle has been described before³ but never in an adequate manner. John O'Donovan's account in the O.S. Letters describes the bawn walls as the ruins of a house attached to the tower, but W. F. Wakeman supplies a small and delicately executed pen-and-ink sketch, which is accurate if not very informative. Rathmacknee was taken into State care as a national monument in 1944 and first repaired during the same year under the supervision of the writer. A careful survey of the tower and part of the bawn was made at this time by the late Mr. Timothy O'Driscoll, Clerk of Works in the National Monuments Branch of the Office of Public Works. It is from his survey that the accompanying illustrations have been prepared, the Commissioners of Public Works having kindly permitted me to make use of the official records for this article.

The castle is a tower-house with attached courtyard or bawn. It is one of the best preserved of the many castles of about the same date for which south Wexford is notable. Only two castles in the baronies of Forth and Bargy can be said to vie with Rathmacknee in completeness: Bargy Castle—much modified, still inhabited and also originally a Rosseter fortress—and Ballyteigue, where there survive an exceptionally perfect high-walled bawn and a tall tower still in partial use. The picturesque quality of the mass and

³ Ord. Survey Letters: Wexford, vol. 1, p. 291; Supp. to "The People", 21. xi. 1889 (quoted in "The Past", No. 5, p. 18); Leask "Irish Castles", pp. 88, 101-2, frontispiece and Fig. 65.

silhouette of Rathmacknee is enhanced by the warm colouring of the stonework and the white-washed farmhouse within the bawn adds to the charm and gives a lived-in effect usually absent from ruined castles.

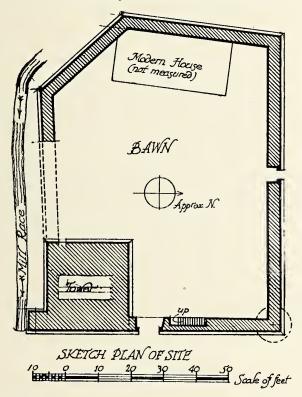


Fig. 1: Sketch Plan.

The tower fills the south-eastern corner of the bawn and is complete but for floors and roof; the five-sided bawn lacks a short length of its south wall and most of the crenellations of the crowning parapets. In plan the tower is a simple rectangle (measuring 25 feet by 27 feet at the top of the base-batter, i.e., at seven feet over ground floor level), with one small projection; a prolongation southwards of the east wall. The internal arrangement is simple: one apartment at each level, provided with closets or chambers in the thickness of the walls or in the south-east turret, and a mural staircase connecting all the levels.

There were five storeys and, probably, a roof attic or garret. The two lowest storeys are beneath vaulting roughly semicircular in section. While the second floor room immediately above the vault was probably paved with stone, the floors above were of timber supported by wall corbels ('C' on plans and sections, Figs. 2 and 3). It is usual to find in Irish castles that

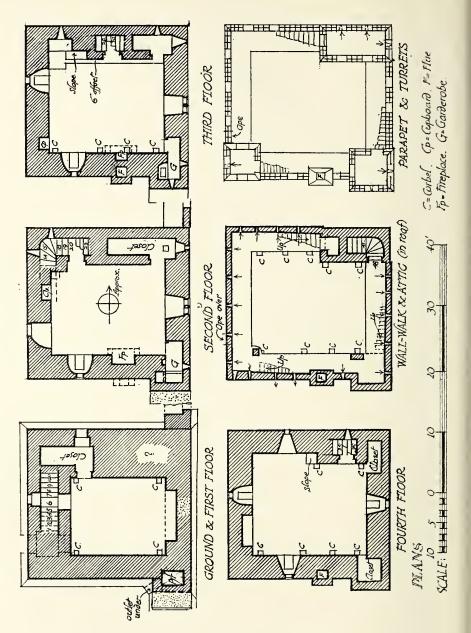


Fig. 2: Plans of Tower.

the cross beams of the floors rested upon wall beams borne by the corbels, but at Rathmacknee the cross beams seem to have been tenoned or housed into the wall beams to reduce the depth of the floor. The heights between the corbels and the obvious floor lines are insufficient to accommodate the usual arrangement.

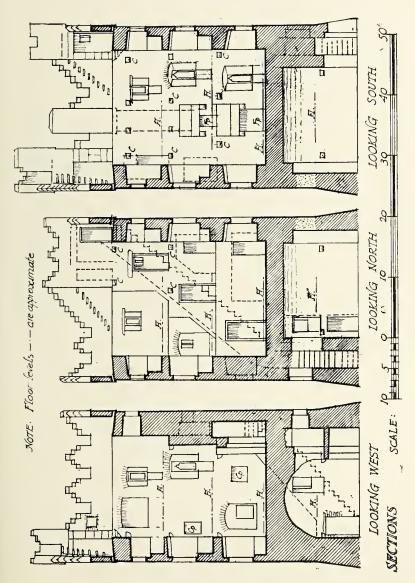


Fig. 3: Sections of Tower.

A very low doorway in the east wall, spanned by a rough pointed arch, is the only entrance to the tower. It gives upon a small lobby and from this, to the left hand, a steep mural stairs of stone rises and turns eastwards at the corner of the building. From this point it goes up straight and still more steeply in the north wall of the tower. At the 42nd step it turns again to reach the door to the wall-walk at the 48th step, 40 feet 6 inches above the ground floor level. Within the entrance lobby is the square-headed doorway of the lowest room; a dark, always unlighted space probably used as a store. There is a small closet off its north-west corner. At the 6th step, opposite a window, is a small doorway in the inner wall of the stairs. It is the entrance to the first floor room, once wooden floored, in the upper part of the vault. It had a window in the east wall (now built up but shown as square-headed in Wakeman's sketch) and a closet with a small window. This chamber is above the ground floor closet and beneath the stairs in the north wall.

At the 20th step of the stairs a doorway gives access to the second floor room. This is relatively well lighted: a pair of lights in the east wall, single windows to the south and west. One of these has window seats in its embrasure. There is a good fireplace with a sloping stone hood or breast borne by corbels, and close by, in the south-east corner, a narrow doorway leads into the garderobe chamber. Opposite, in the north wall, is a larger mural closet. This is directly over the thickest wall in the building (marked '?' on plan, Fig. 2) and has a small opening in its floor. It is conceivable that there is a chamber hidden in this thick masonry but the matter has not been investigated as yet.

The entrance to the third floor room is at the 29th step. This room is a little larger than that below and is better provided with windows. Two of the window embrasures have seats and there is a fireplace, hooded like that directly below but smaller in size. This room also has a garderobe and a wall closet. The uppermost room, the fourth floor, is still larger than that below by reason of an extension northwards over the lower part of the mural stairs. It has three small, square-headed windows, all with window seats, and a small loop. There are two closets, one in the garderobe turret, but no fireplace. As the row of corbels high in the south wall of the room but below the wall-walk indicate, there was a floor over this room and from this circumstance a garret or attic in the roof structure is to be inferred. The form of the roof is unknown. It was in all probability hipped and of fairly steep pitch.

The wall-walk, covered with flags sloping outwards to numerous outlets in the base of the parapet walls, goes all round the roof, interrupted only by the narrow turret at the stair top. The walk passes under the two turrets which rise at the south-east and south-west angles and are supported by stone pillars (granite) at the inner corners. The parapets are crenellated all round with the stepped battlements characteristic of Irish XVth and XVIth century architecture. The walls rise to the turrets and are thickened in these sections to support the rough flags which form steps to the highest levels.

In the west parapet, close to the turret and almost directly over the entrance doorway, is a small rectangular opening. Doubtless its purpose was defensive: missiles could be discharged from it upon anyone attacking the door five storeys below and a shutter or flap, hinged at the top edge, would afford some protection to the defender. The two chimney flues are carried up in a projection from the south wall borne by corbels, and the plain stack is thickened and widened at the overhang of the parapet.

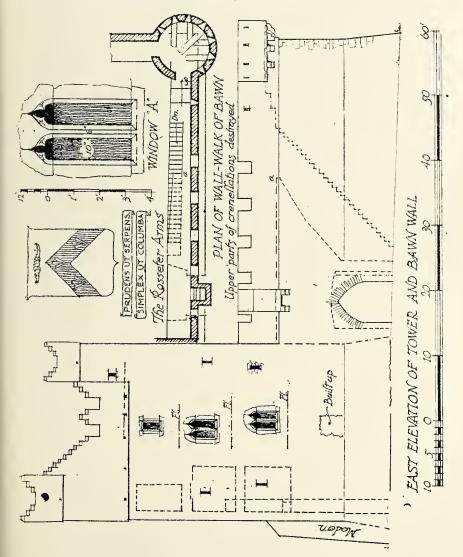


Fig. 4: East Elevation, etc.

The stepped battlements are the most striking features of the exterior view of this simple tower. Below them the walls rise sheer from a bold base batter. They appear to have a very slight batter, but this has not been verified by precise measurement.

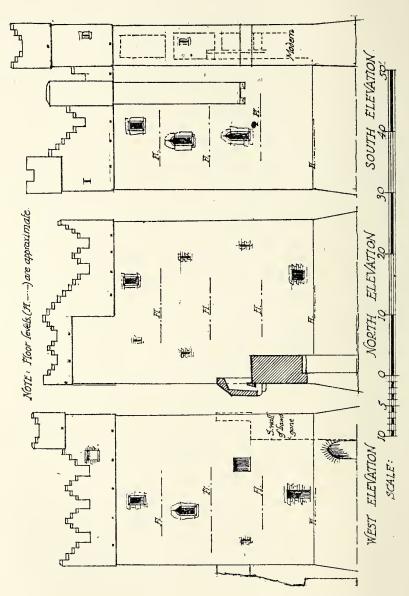


Fig. 5: Elevations of Tower.

Of the dozen or so windows—excluding the plain openings to the west and north—the largest are the paired lights in the east wall, two single lights on the south and another in the west wall. All these have ogee heads, cusped (see detail "A," Fig. 4) of XVth century type, and are from ten to twelve inches wide and less than four feet in total height. The garderobe chambers, the mural closets and the stairs are lighted by very small loopholes, barely three inches in width.

The almost complete bawn has walls four feet in thickness above the base batter, except at the gateway, where it is six inches thicker. The opening, about six feet wide, is spanned by a rough pointed arch and the wider inner embrasure by a segmental arch. The stone eye for the wooden gate remains. Over the entrance a defensive machicolation of stone is corbelled out, and close to the opening inside is a long flight of steps recessed in the wall, leading up to the wall-walk, the southern part of which is corbelled out over the steps to "A," Fig. 4. A well-preserved feature of the bawn is the round 'bartizan' at the north-east corner, supported by five bold corbels and having no less than seven musket or pistol loops in its parapet. There is a less prominent, square, bartizan feature at the north-west corner of the bawn. The present average height of the bawn walls to the top of the parapets is about 24 feet, but was originally greater by the height of battlements which have disappeared. About the centre of the north wall is a doorway which may not be original.

The whole Rathmacknee group: castle, bawn and farmhouse; church and churchyard, old mill and mill pond, presents—despite the modernity of most of its component parts—an attractive picture, a picture of a medieval Irish manorial centre; all of them, plus some barns and the like, would have been present at such a site in ancient times.

BRONZE AGE BURIALS, CO. WEXFORD.

By P. J. HARTNETT and E. PRENDERGAST (Members).

Of the four burials recorded below, the first two have been fully investigated on behalf of the Museum. In regard to the third (Bolinready) permission to examine the site has so far not been granted. Details of the fourth burial (Deeps) are vague. They were given by the finder (who wishes to remain anonymous) to Mr. Michael Kehoe, N.T., Glyn, Co. Wexford.

I.—CIST GRAVE WITH FOODVESSEL IN THE TOWNLAND OF ANNAGH MORE, NEAR GOREY.

The site was discovered in June, 1948, by the landowner, Mr. Thomas Darcy, Annagh Villa, Gorey, when cross-harrowing in preparation for opening drills for turnips. It is on a natural rise in a field which slopes southwards towards a streamlet (Bann) over 100 metres away.¹

The teeth of the harrow struck a large flat stone 20 cms. below the surface. On removing this stone Mr. Darcy exposed a stone-lined cist grave in which was a foodvessel and a quantity of inhumed bones. The foodvessel stood upright on a thin film of soil at the N.W. corner of the grave. A small amount of what was described as "black ashes" contained in it was emptied out by the finder and lost.

It was obvious that the body had been disarranged and some of the bones removed in the interval since the discovery of the grave. We were assured, however, that the position of the skull and remaining long bones (Pl. VI, below, left) was as originally found and so it may be taken that the burial was a crouched one. The skull, in three fragments, lay at the west end of the grave; the other fragmented and incomplete remains rested loosely on a layer 5 cms. deep of compacted dark soil which covered the rock-cut floor of the cist. In this undisturbed layer were embedded a few badly decayed long bones and teeth belonging to a child of 2 to 3 years. (See Appendix B).

According to the medical evidence, this dual burial was of an adult male and a young child. The excavation showed that the child was the first to be buried; the dispositions of the adult burial and foodvessel suggest a later re-use of the cist.

THE CIST, Fig. 1: This measured 78 by 42 cms. internally, the longer axis running E.-W. Its walls, 46 cms. in height, were formed of four thin shales, the north and south stones projecting beyond the east and west stones which fitted squarely between them. An oval pit, 1.3 by 1.0 metres, was cut through upper humus, yellow clay and underlying shaly rock to a depth of 80 cms. and a packing of field stones and clay behind the uprights kept them

¹ Townland of ANNAGH MORE, parish of Kilnahue, barony of Gorey, Co. Wexford. Map (6") 2:21.5 cms. from east; 1.5 cm. from north margin.

PLATE VI | Facing p. 46











Photo: National Museum.

BRONZE AGE BURIAL, ANNAGH MORE, CO. WEXFORD.

Above (left): Section of Foodvessel. (Right) The Foodvessel.

Below (left): Cist, looking west, showing position of skull and body.

(Right) Base of Foodvessel showing "Star" pattern. (The pits in base are not seed impressions).



in position. The capstone, though of irregular outline, completely sealed the grave.

Note: At 63 metres due south from above cist we were shown what Mr. Darcy thought was a second cist. He had removed some flags which were quite near the surface. These formed no regular plan, but the soil between them was said to be dark and loose to a depth of 70 cms. One of

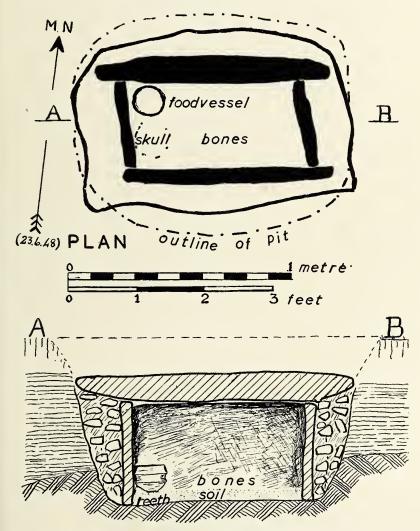


Fig. 1. CIST GRAVE AT ANNAGH MORE, CO. WEXFORD.

Above: Plan, showing position of Foodvessel.

Below: Section.

Mr. Darcy's workmen, William Bass, said he dug there and came on the 'walls' of a grave at a depth of 'about 6 feet'. His description of these 'walls' suggested that what he mistook for walls was in fact the natural bedding of the basic shale. Trial cuttings at the point indicated produced no evidence of a grave.

About 1923 Mr. Darcy found "a slab-lined cist about 15 inches square and covered with a capstone". It was about 15 inches deep, and contained a human skull, nothing else. He reburied the skull a foot deeper and replaced the sides and capstone. He cannot now locate the exact spot, but said it was in the same corner of the field and quite near the present cist.

THE FOODVESSEL: (Pl. VI). Some fragments of the rim broke off when the finder was removing the vessel from the cist but these were collected by him and have since been re-set in the Museum. The ware is light buff in colour with hard black core, and is well fired. Some quartz grits show in the paste, particularly in the inner surface. The outer surface has a burnished appearance. The measurements are: Height 10.5 cm.; diameters at mouth 13.0 cm., at upper ridge 14.3 cm., at lower ridge 13.3 cm., at base 5.0 cm.—all outside measurements. The thickness of the pottery is 9 mms. for the walls and 1.2 cms. for the base.

The Annagh More foodvessel is a typical example of the tripartite bowl and has numerous parallels among Irish and Scottish bowls.² It is profusely decorated on the outer surface in horizontal zones. Above and below the body ridges the decoration consists of alternating bands of false-relief zig-zag, and "comb" pattern, the latter in sloping parallel lines, separated by narrow incised grooves. On the broad central groove are two opposed meanders in relief arranged to give five oval panels or cartouches. These panels are filled with horizontal lines of "comb" pattern. The rim has a zig-zag relief pattern, and the base has a four-pointed star. On the pottery evidence the Annagh More burial may be dated Early to Middle Bronze Age. In dating the Kelshamore, Co. Wicklow burials a round figure of 1500 B.C. is suggested for them.³ The Annagh More foodvessel, because of its more pro-

nounced body groove should be typologically somewhat earlier and the "star" pattern on its base as well as the association with a crouched inhumation would appear to confirm this.

Thanks are due to Mr. T. D. Synnott, Wexford County Manager, who first reported the discovery, and to Mr. Thomas Darcy who assisted at the excavation and subsequently presented the finds to the Museum (P. 1948:

² Abercromby's Type B of Irish and North British series. See J.R.S.A.I., LXXXII (1952), p. 153. . . . To the parallels cited there may be added two further examples. One of these, from Gortcorbies, Co. Derry was found in a burial mound: J.R.S.A.I., vol. lxxvii, p. 11, and fig. 4. The other is from Ballynagarry, Co. Antrim. See U.J.A. 5 (1942) p. 96 and Fig. 1. In this case there was no cist.

³ J.R.S.A.I. LXXXII (1952), p. 153.

100). For the appended report (A) on the skeletal material we are indebted to Professor E. Keenan, Department of Anatomy, U.C.D. The notes on the teeth (B) were kindly supplied by Dr. R. B. Dockrell, Professor of Orthodontics, U.C.C.

Appendix A.

"The remains are those of a youth (male) of about 18 years.

"The bones are too fragmented to allow of anything approaching accurate measurement or indices.

"Visual examination of the fragmented skull suggests a large capacity and a cephalic index of about middle mesaticephalic.

E. KEENAN.

1.5.50

APPENDIX B.

(1). (The adult teeth and mandible.)

Teeth present: $\int \frac{...4567}{.....678} \int \frac{8 \text{ lost postmortem}}{8 \text{ unerupted}}$

No caries. Some breakdown of interdental septa. Some calculus.

Hypoplasia of $\int \frac{65}{6.}$

Age 14-20 years.

(2) (The child teeth).

Teeth present : $\frac{76.4}{7.54} / \frac{3 \dots 7}{1.54}$

Some teeth show traces of hypoplasia.

Age 2-3 years.

R. B. DOCKRELL.

5.3.52.

II.—CIST GRAVE WITH FOOD VESSEL AND FAIENCE BEAD AT BALLYDUFF, BALLYCANEW.

The site¹ is just over 400′ O.D. on the southern slope of the Camolin/Ballycanew ridge, which ultimately rises to some 500′. Some years ago a Neolithia burial was investigated by the Museum at Norrismount,² beside Camolin, three miles W.N.W. of Ballyduff, and we have information of another burial, presumably Bronze Age, less than half a mile from our site in the adjacent townland of Bolinready.³ Mr. Henry Rothwell, who has recently

¹ Ballyduff townland, parish of Ballycanew, barony of Gorey, Co. Wexford. Its exact location on the 6" O.S. map (No. 16) is 18.4 cms. from the north margin and 33.0 cms. from the east margin. Finds registered in National Museum—P. 1952: 4,5,6.

² A. T. Lucas in J.R.S.A.I. LXXX (1950), 155-7.

³ See p. 57.



surface. The grave was found by Mr. Rothwell on February 8th, 1952, who removed the foodvessel to his house for safety. It is gratifying to be able to record that though many visitors were attracted to the site the contents of the grave were not disurbed.

When found the grave was filled to within about 25 cms. of the underside of the capstone with soil in which were mixed cremated bones. The foodvessel lay on its side on top of the fill in the S.W. corner of the grave and was said by Mr. Rothwell to have contained a small amount of dark loose soil which fell out. Except for some fresh topsoil which had slipped in subsequent to the removal of the capstone, we found the bones just as they had been originally deposited. For the record, we wish to point out that the soil in the grave was not inwashed soil but was part of the burial ritual. There was a depth of 15 to 20 cms. of fill in the grave on top of which the pot was lying and through which the cremation was mixed. In removing the fill a small segmented bead of faience was found. This appeared to have been burnt with the body and was very fragile. It broke on being handled, but the two fragments were preserved and have been fitted together in the Museum.

THE CIST (Plate VII, 4, 5 and Fig. 2.)

The cist was roughly oblong in plan, 50 x 40 cms., with longer axis N-S. The sides were formed of four wide upright stones with a supplementary narrow upright set diagonally across the N.E. and S.W. corners. As the depth of the cist between the capstone and the paved floor was 40 cms. and the effective heights of the uprights from 17 to 30 cms. it was necessary to make up the differences by a dry walling of one to three courses of flat stones (Fig. 2). Except for the western sidestone, which was a tabular block 12 cms. thick, the other main sidestones were triangular in section, set on their bases, with the space between the sloping back surface and the side of the pit packed with clay and stones. The stones of the dry-walling were so arranged that the mouth of the cist was approximately hexagonal in plan. (Fig. 2 and Pl. VII, 4, 5). The stone used was a much weathered mica schist or phyllite of local origin.⁴

Two large slabs of unequal thickness, fitting between the sidestones, almost filled the floor space, leaving a small area at the S.W. to be completed by a paving of small stones. The floor of the grave pit was excavated in a hard yellow clay in which traces of the underlying broken shale appear.

THE FOODVESSEL (Pl. VII, 1, 2).

The vessel is of "vase" form (Abercromby's Class E).⁵ Below the shoulder the walls have a somewhat curved profile finishing in a more or less straight "foot". The base is decidedly concave. A fragment from the rim, 4.5 cms. wide and 1.0 cm. deep (maximum) was accidently broken off by

⁴ Information from Professor H. J. Seymour.

⁵ See Abercromby, Bronze Age Pottery (hereinunder cited B.A.P.), I, 116.

the finder and lost; otherwise the vessel is intact. The ware is of good quality, light buff on the surface with black core free from large grits. In both surfaces are scattered, shallow pits, rather like "worm-holes" in wood. That these are not due to grits having fallen out is clear from the manner in which the holes are in most cases undercut. Probably they are due to a vegetable mixture (grass, straws) in the paste which disappeared in the firing. They do not resemble seed impressions.

The pot is 12.4 cms. in maximum height (it is asymmetrical), 13.5 cms. diameter at mouth and shoulder, 12.1 cms. diameter at neck and 6.8 cms. at base. The thickness of the wall varies between 1.2 cms. (lip) and 1.0 cm.

The outside of the body and the inside bevel of the lip are profusely decorated, a combination of horizontal grooves and oblique scorings producing "ladder" patterns, hatched triangles and herringbone. On the inside of the lip four evenly-spaced concentric grooves define five ridges filled with short oblique scores which alternate to produce a continuous herringbone pattern. This arrangement is repeated on the outside. Between the neck constriction and the shoulder is another zone of herringbone with a narrow band on the pinched-out shoulder moulding emphasised by grooves above and below it.

A thin band of vertical scores between two parallel grooves forms the upper border for a broad zone of alternating hatched triangles on the body of the vessel. There are ten of these triangles, divided one from the other by a "ladder"-like zig-zag strip. The hatchings within the triangular areas are in the form of deep scores parallel to one or other of the sloping sides. In making the scores a narrow, pointed piece of wood or bone was pressed into the clay and then dragged lightly in the required direction. This technique is quite evident in the lowermost triangles where the scores are drawn downwards from right to left and have, in the main, obliterated the "stabs" of the earlier up-drawn scores of the pendant triangles. A herringbone and a line of short down strokes on the foot of the vessel complete the ornamentation.

The Ballyduff pot is almost exactly paralleled by a recently discovered⁶

⁶ Unpublished, but we are indebted to Professor M. J. O'Kelly, Dept. of Archaeology, U.C.C. for loan of drawings and notes, and for permission to use them in advance of his publication. Between 1949 and 1951 in the course of sand quarrying, at least 17 burials were accounted for, some in cists, some in shallow pits, and included cremations and unburnt crouched remains. A bowl foodvessel accompanied a cremation in a shallow unprotected pit; fragments of another were found with a crouched skeleton in a ciet. The third vessel (that which resembles our Ballyduff vase) was salvaged after the grave had been demolished by the bulldozer and so there are no find details.

One of the cists examined by Professor O'Kelly in 1949 contained a cremation and sixteen bronze rivets, 5 mm. in length and clinched at both ends, which he suggests might have been used to fasten pieces of leather. Another 1949 burial in a pit protected by rough boulders and gravel contained two skeletons and produced a flat riveted bronze dagger 12.7 cm. long. When found the dagger was wrapped in moss (not yet identified). None of the bronzes can be directly associated with the pottery. The most one can say is that the burials were put down probably at short intervals and the site seems to be a single period one.

vessel from a Bronze Age cemetery at Ballyenilian North, near Fermov, Both have the steep inward rim bevel, angular neck, moulded shoulder, convex sides and short disk foot with hollow base. Another very close parallel from the same area of N.E. Cork, Ballynahow, accompanied by a pygmy cup and a cremation, was contained in a cist whose constructional details bear a remarkable similarity to those of the Ballyduff grave.8 Other examples come from Topped Mountain⁹ (Fermanagh), Talbotstown¹⁰ (Co. Wicklow), Kilmuckridge¹¹ (Co. Wexford) and from among the miscellaneous vessels from Bronze Age cemeteries at Greenhills¹² (Co. Dublin) and Ballon Hill¹³ (Co. Carlow)—all with the Ballyduff profile and all having as a leading motif the alternately hatched triangles or basket zig-zag. Finally, in our search for parallels we may cite a foodvessel from Llangwm, 14 Denbighshire, which, except that it possesses a more rounded neck and shoulder profile, is not far removed from the Ballyduff vase. We cite it because it was found in a cremation cist with a larger cinerary urn and two segmented faience beads.

The arrangement of alternately hatched triangles imitating basketry found as a decorative motif on the Ballyduff pot persists right through the Bronze Age. It occurs on the flat bronze axes and gold lunulae of the early metal periods and on the Middle/Late Bronze Age so-called "Sun-disks" of gold. On pottery, it is a popular Beaker motif both in Britain and on the Continent, the incised or scored lines on our foodvessel being replaced by broken or hyphenated ones. On cinerary urns of the Overhanging Rim class it is carried out in twisted cord technique. One finds it on Encrusted Urns where the triangular compartments between the applied zig-zag ridges

⁷ O'Kelly in J.C.H.A.S., 1946, 78 ff, Plate IV and Fig. 1.

⁸ O'Kelly, op. cit. Cf. Plan and W.-E. Section in Plate IV and Fig. 2 . . . this paper.

⁹ Found with flat riveted bronze dagger and a gold mount (presumably for the wooden or bone handle) with a crouched burial in a cist set into the side of a cairn. There was a separate pile of cremation in the grave, but the dagger and foodvessel were associated with the crouched skeleton.

See P.R.I.A. (1896-98), 651 ff. Foodvessel, p. 654, Fig. 4 and Dagger and mount, p. 653, Figs. 2 and 3. See also B.A.P., I. xlv: 256 and lxi: 0.51.

¹⁰ B.A.P., I, liv: 402 and L. Price in J.R.S.A.I. (1933), p. 62, and Pl. vii: c.

¹¹ B.A.P., II, civ: 565. Three vessels are shown, one a pygmy cup. These are now in Belfast Museum, being acquired in 1891 with the collection presented by Canon John Grainger. In the catalogue, the foodvessel of Ballyduff type is said to have been "found while digging the foundations of the porch of a house at Kilmuckridge, Co. Wexford, 1887." It is not certain that the other vessels (one the pygmy cup) were associated or that they came from Kilmuckridge. Information from Mr. G. B. Thompson, Keeper, Antiquities and Ethnography Division, Museum and Art Gallery, Belfast. 12 P.R.I.A. (1899), 338 ff. Pl. x-xv.

¹³ B.A.P., II, cii: 541 b. See J.R.S.A.I. (1852-53), 295 ff. for account of discovery and cf. Archaeological Journal, xi (1854), 73 ff.

¹⁴ Grimes, Guide Prehistory of Wales, Cardiff, 1939, Fig. 28 and p. 85, and p. 176, No. 386.

are filled with incised hatchings, 15 while it occurs quite often on the little pyginy or "incense" cups, so-called, in Britain and in Ireland.

Enough has been said to show how unreliable would be any chronological conclusions based on the occurrence of a motif so persistent and so widespread. But our vessel has an additional something not found on Bronze Age pottery generally. This is the deliberate band of "ladder"-like pattern separating the triangular fields, and for which we can find no Irish parallels. On Beakers one gets something rather like it, but this always takes the form of a plain ribbon-like band, 17 never with horizontal cross members. The "ladder" pattern arranged horizontally or radially is well known in vessels of the Iberian Cave Culture and Kilbride-Jones has recognised it in the Early Bronze Age hanging bowl from the Drimnagh (Dublin) tumulus. It rarely occurs zig-zag wise as at Ballyduff, and then not as a border for incised hatched triangles.

THE FAIENCE BEAD.

For absolute dating we rely on the associated faience bead for the very full report on which (Appendix A) we are indebted to Dr. J. F. S. Stone, F.S.A. The closest parallel seems to be the beads from Tell Duweir which are securely dated 1450-1400 B.C. Our burial then should date shortly after 1400 B.C., allowing a reasonable interval for the bead to get here from the eastern Mediterranean, perhaps via Wessex. It is unlikely that the bead would have been preserved as a family heirloom over many generations and deposited in a late grave. The evidence already adduced on typological and decorative considerations is not against an early Middle Bronze Age dating for the Ballyduff group.

The fact that our bead is the first of its kind to be recorded in unequivocal association deserves to be mentioned, but more important still is that it comes from Co. Wexford so close to the Wiltshire focus and in line with Welsh outliers.²¹ Beads of such small size (8 mm.) could so easily be

¹⁹ Kilbride-Jones, op. cit., p. 203, Fig. 1.

20 Castillo, op. cit., Plate i (lower) No. 13 and lxxxvii: 1 (Somaen) and cxix: 1 (Villafrati, Sicily).

¹⁵ Clonshannon (Co. Wicklow), Ballyshannon (Co. Donegal), Tullywiggan (Co. Tyrone) and Edmondstown (Co. Dublin).

¹⁶ On the rim of an O.H.R. urn in the the Museum from Gortlush, Co. Donegal, there is a pattern in closely twisted cord technique which is rather reminiscent of the Ballyduff "ladder", except that it encloses diamond-shaped, undecorated panels.

¹⁷ B.A.P., I, especially Nos. 12, 49, 66, 94, 99, 169, and for Spanish examples cf. Castillo, La Cultura del Vaso Campaniforme, Plates vi: 10; vii: 7; xxxii: 14; xxxiii: 3, 11, 13 and 14 (from Somaen).

¹⁸ For the occurrence of "ladder" motif generally see Kilbride-Jones in J.R.S.A.I. (1939), p. 205 and references therein.

In See report of a necklace of segmented faience beads from a barrow at North Molton, North Devon, by Aileen Fox, M.A., F.S.A., in The Antiquaries Journal xxxi (1951) p. 25 ff., pl. vii, with list of faience beads additional to those published by Beck and Stone in Archaeologia lxxxv (1935), 234, and revised distribution map, p. 31, Fig. 2.

overlooked in a mass of cremation that one wonders how many may have been missed because of the need for hasty examination under difficult conditions or because the contents of the grave had been already scattered by unauthorised persons. In the case of the Ballyduff burial the bones had not been interfered with and for this we have to thank the landowner, Mr. Henry Rothwell, and his neighbours.

We acknowledge, with gratitude, the help received from many quarters. in particular we wish to thank Supt. P. Glynn, Gárda Síochána, Gorey, and Mr. W. G. Moulds, Kilkeysan, Camolin, for promptly drawing the Museum's attention to the burial; we are especially grateful to Mrs. Nora Hartnett who assisted at the excavation, and to whose painstaking sifting of the cremated bones we owe the recovery of this minute faience bead. Mr. E. M. Jope, F.S.A., Dept. of Archaeology, Queen's University, Belfast, had no hesitation in confirming our impression as to the material and arranged for it to be expertly examined by Dr. J. F. S. Stone, whose report (Appendix A) more than adequately sums up the position: to both these scholars we offer our sincere thanks. Finally, as so often before, we are indebted to the cooperation of Professor E. J. Keenan and his staff in the Anatomy Department. U.C.D., for reporting on the human remains (Appendix B).

APPENDIX A.

SEGMENTED FAIENCE BEAD FROM BALLYDUFF, CO. WEXFORD.

In comparison with Great Britain segmented faience beads seem to be very rare in Ireland. One only has been recorded up to the present, a bead of four segments from Dundrum Sandhills, Co. Down (*Archaeologia*, LXXXV (1935), 251).²²

The bead from Ballyduff, Co. Wexford, is, therefore, of considerable interest as it extends the range of these ubiquitous faience trade imports almost certainly from the Eastern Mediterranean.

The bead itself is a segmented one of two segments which have however now become detached. In some ways it is unlike the normal specimens found in such numbers in Wiltshire and Southern England. In particular, its diameter is much larger than usual being about 8 mm., and then again the perforation is small in comparison, being only 2 mm. It will be recalled that in general, similar beads in England and those described by Childe from Central Europe near Szeged (American Journ. Arch. XLIV (1939), 23-24) possesses perforations equal to or more than one half the diameter of

²² We (the authors of this paper) would like to add the following note. In a private collection in Abergele, Denbighshire, are two faience beads which were "found in Dublin." One is of three segments, white glazed and the other is of two segments, ultramarine blue glazed. No further information is recorded about them. Dr. Petrie is alleged to have found in cairns in N. Ireland "opaque blue glass ornaments, exactly similar in colour and material to those of the Egyptians," see Wood-Martin, W.G., Pagan Ireland, 525.

the beads themselves (Archaeologia, LXXXV, 205). On the other hand, the segments of the Ballyduff bead are separated by a deep and well formed groove and do not in any way resemble those of the so-called crimped type so characteristic of Scotland. Morphologically the nearest parallel would seem to be the large segmented beads of two segments found in group No. D.555 in Structure I of the Fosse Temple at Lachish (Tell Duweir), Palestine, found with a paste plaque of Amenhotep II and now in the Palestine Museum, Jerusalem (information kindly supplied by Miss Olga Tuffnell). Structure I appears to have come to an end about 1400 B.C., and in Miss Tuffnell's opinion group No. D.555 should cover a period between 1450-1400 B.C. The beads, incorrectly dated in 1936 by Beck and myself, are illustrated in Archaeologia, LXXXV, Pl. lxix, fig. 2, nos. 11 and 12.

The Ballyduff bead is a very pale greenish white faience and has apparently been made by fusing at a low temperature a mixture of finely powdered quartz grains with a small quantity of intimately mixed finely powdered light green or blue glaze. Practically no external glaze is now present and it is indeed doubtful whether this particular bead ever consisted of the more normal quartz core superficially covered with a coloured glaze so characteristic of typical faience. Nevertheless, the basic material is a faience possibly nearer the glassy faience (variant E) of A. Lucas (Ancient Egyptian Materials and Industries, 1948, 188), though it is a very soft variety recalling the soft faience of segmented beads and white inlay of MM III times from Crete. Apparently the low temperature attained during the firing prevented adequate fusion, and it would seem as if some gas-forming binding material had been used to mould the bead before firing as so many minute air or gas bubbles are present in the fabric. This occurrence of great numbers of minute air holes is not uncommon and is exhibited in a very marked degree in a faience quoit bead, also light blue throughout without well-defined external glaze, from Longniddry in East Lothian and now in the National Museum of Antiquities of Scotland.

In the present state of knowledge I would infer then that this Irish bead is an eastern Mediterranean import, probably from Egypt, and that it may provisionally be dated round about 1400 B.C. in view of associated datable finds in both Egypt and Palestine. Spectroscopic analysis might yield more information but a large part of the bead would necessarily be destroyed in the process, a proceeding not at present warranted in view of the rarity of the type in Ireland.

J. F. S. STONE.

1st May, 1952.

APPENDIX B.

"Cremated fragmented remains of at least two young adult human skeletons. Owing to the fragmented and warped condition of the bones it is not possible to estimate age or stature. There is slight evidence that one of the skeletons present is that of a male and the other that of a female. It is not possible to state if there is any disease of the teeth.

There are no non-human bones present."

(Sgd.) E. KEENAN.

30th July, 1952.

III.—CIST BURIAL WITH FOODVESSEL AND CREMATION AT BOLINREADY, BALLYCANEW, CO. WEXFORD (O.S. 16).

Mr. W. G. Moulds, Kilkeysan, Camolin, in a letter dated 25 February, 1952, gave the following facts relative to a burial found over thirty years ago in the townland of Bolinready. The facts, since verified with the landowner, are as follows:—

- (a) It was discovered during ploughing about forty years ago by the then landowner, Mr. J. Roche, and his workman (the latter is still living).
- (b) It contained an earthenware vessel which was not removed.
- (c) There were no bones or skeleton, only sand or soil. (Presumably this was a cremation like that at Ballyduff).
- (d) The covering stone was replaced immediately and the contents of the grave were not interfered with in any way.
- (e) The present landowner, Mr. W. Dowling, can locate the exact spot, but as yet it has not been possible to have the site examined.

IV.—CIST BURIAL(S) AND URN(S) IN THE TOWNLAND OF DEEPS, NEAR WEXFORD.

The position of the site on the 6" map, No. 32, is as follows:— 21.0 cm. from west, 5.0 cm. from south margin.

Sometime during July, 1951, workmen engaged in quarrying sand, came on burials, one at least of which was contained in a cist and was accompanied by a foodvessel. Unfortunately, the grave or graves were destroyed and the contents scattered before the discovery was reported to any responsible persons. Mr. Kehoe, then President of the G.A.A., was in America at the time, and hearing of the discovery on his return, made every effort to get the facts. One of the workmen had apparently removed the vessel and smashed it, and the fragments were now irrecoverable. There were apparently no skeletal remains, just black "cinders", probably cremation.

THE SIEGE OF ATHLONE.

By DIARMUID MURTAGH.

"There are three town we call our own, Limerick, Galway and stout Athlone."

THIS couplet from the old ballad represents the Irish strategy after the defeat of the Boyne. It was a strategy that depended in its essence upon the defence of the Shannon. It is necessary nowadays to emphasize that in the 17th century the Shannon represented a barrier that was capable of successful defence. In fact, as we shall see, it remained inviolate against the repeated attacks of the Williamites for just twelve months.

The importance of Athlone in this defence was twofold. In the first place, it stands upon the esker ridge that runs from East to West across Ireland from Dublin to the then Jacobite stronghold of Galway and it stands where that esker is intersected by the Shannon. In the second, it was the main stronghold upon the Middle Shannon. It was the first place attacked and the place also where the line was ultimately pierced.

The first attempt was made on Athlone in 1690, when Douglas, with ten thousand troops was detached from the main Williamite force advancing upon Limerick with a view to taking Athlone. Following the defeat at the Boyne, something approaching a serious demoralization had set in among the Irish troops and their Commanders. One symptom of this was the degringolade of the Irish fortresses that ensued. Drogheda, Wexford, Duncannon and Waterford surrendered without firing a shot. It is evident that William came to the conclusion that all serious resistance was at an end for Douglas had neither sufficient ammunition or food to carry out a sustained siege.

The Governor of Athlone at that period was a redoubtable old warrior, Colonel Richard Grace, a veteran of the Confederate Wars. When Douglas appeared before the town he retreated to the Connaught side, broke down an arch of the bridge and refused all inducements to surrender. Douglas bombarded the town for a week without making much impression. Then, with ammunition and food running low and the threat of the Irish horse on his flank, he raised the siege, broke camp and rejoined William at Limerick. From the point of view of fighting, the siege was an insignificant affair—indeed it can scarcely be described as a siege—it was really only an attempt to take Athlone by a coup de main. But from the point of view of its political, strategic, and morale-raising effect, it was of immense importance. Grace was the first Irish Commander who made any attempt to defend his charge; moreover, he had defended it successfully and he had preserved inviolate the line of the Shannon. By doing so he rendered possible not

merely the successful defence of Limerick, but the continuation of the war for another eighteen months.

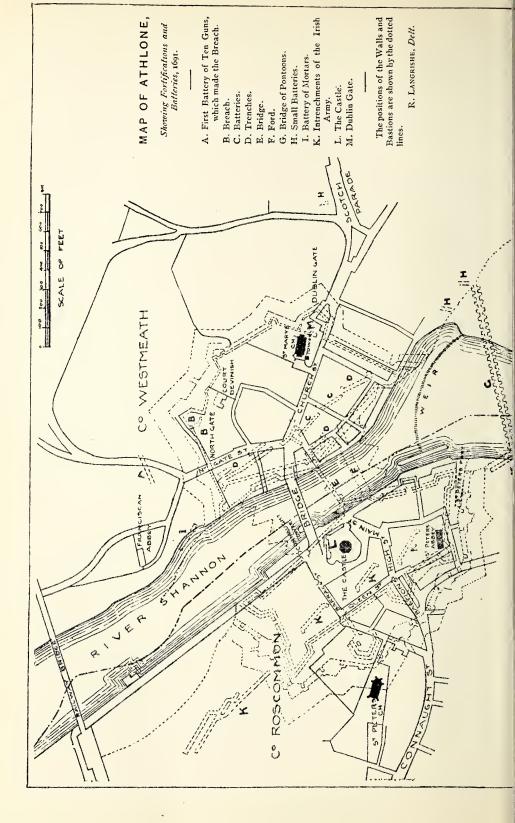
It was a year before Athlone was menaced again. In the meantime William in person had recoiled from Limerick and Kirke and Douglas had been defeated in a winter campaign to turn the Shannon from the North.

Now, in June 1691, Ginkel, the new Commander, was to attempt its crossing once more.

The Williamite army was disposed with 7,000 men at Roscrea under Wurtemburg and 14,000 at Mullingar under Ginkel. This disposition threatened the crossings of the Middle Shannon from Lanesboro' at the North end of Lough Ree as far south as Portumna. But it had certain disadvantages. Were St. Ruth to cross the Shannon in the vicinity of Banagher or Portumna, he could march on Roscrea and destroy Wurtemburg before Ginkel got to his assistance. Alternatively, he could launch a thrust from Lanesborough against Ginkel at Mullingar and defeat him before Wurtemburg arrived. Fear of this influenced Ginkel to concentrate his force for one thrust and it only remained to decide where that would be made. Ginkel decided to make his attack at Athlone. He was influenced in this, firstly by the fact that in the previous year the Williamites had found excellent battery positions on the Leinster shore to cover the crossing, and secondly, by another piece of information that had come his way. French Engineer Officer (presumably of Huguenot sympathies) had deserted to the Williamites. This Officer had worked in the fortifications of Athlone during the previous year. He informed the Marquis de la Forest—a member of Wurtemburg's staff-that there was a ford below and near the bridge over which he had often seen soldiers passing while he was at work on the ramparts. Accordingly, Ginkel marched on Ballymore. This was a forward position established by Sarsfield, about twelve miles east of the Shannon. It should never have been held at this time, and a thousand of the best troops were frittered away in it.

Ballymore fell on the 8th June, but Ginkel did not advance again until the 18th, when he moved as far as Ballyburn Pass, near Twy, and he was there joined by Wurtemburg.

At first light on June 19th Ginkel himself rode out with a party of horse upon a reconnaissance of Athlone. He came in contact with their patrols on the hills of Anker's Bower and Retreat. Tettau was sent forward as an advanced guard with four regiments of infantry, some horse and dragoons. King James in his Memoirs says "the Governor sent out some Granadeers to dispute the passes and defiles which was done with courage and prudence enough, still retiring before them which cost the enemie many men". Whatever about the casualties, the delay caused by the Grenadiers was slight, for we are told that Tettau had driven in the Irish outposts and was up against the defences of the town by "nine a clock".



The rest of the day was spent by Ginkel in getting up his guns and erecting batteries.

In his "History of Westmeath", published in 1682, Piers describes Athlone: "Athlone a corporate town situate on both banks of the Shannon, the part on this [Leinster] side of the River was much the better built. The other part, together with the King's Castle, situated on the Western Bank was in the County of Roscommon. Both parties united into one Town by a very strong-raised and well built bridge. . . . This bridge, though the arches thereof be wide and large, causeth the River, which is here very deep, to rise and swell backwards, so that under it the River hath a great fall, which giveth it an advantageous situation for several undershaft mills on each end of the bridge. One Tower on the corner of the Castle Wall is so advantageously seated that it commandeth the whole bridge, which nevertheless hath a great draw-bridge on that end . . . In the centre there is a high raised Tower, which overlooks the wall and the country round about it.

"The part on this [Leinster] side was fortified with stone walls flanked with timber bastions according to the Rules of modern fortifications. The insides of these walls and bulwarks were lined with a large rampart of stone and earth. The outside was made not easily accessible by a large deep graff. Round about on the flankers were mounted several great guns. The Town on the other side was also fortified with great ramparts of earth, flankers and a large deep graff. The works here set with a quick hedge which was well kept and shorn and had upon it a considerable growth at the time of his Majesty's happy Restoration."

Colonel Nicholas Fitzgerald had now replaced "old Dick Grace" as Governor—no doubt upon account of the latter's age. But Grace was still amongst the garrison. Fitzgerald had at this stage a garrison of what Plunkett calls "1,500 choice foot and Grenadiers".

There is evidence that this garrison was in a poor state physically. The previous winter had been severe upon the Irish troops who were short of all the necessities of life. I have seen one contemporary letter to the effect that the garrison could not go to the relief of Ballymore "for want of bread". And there is evidence that a number of soldiers died of hunger in Athlone in the previous April.

Unlike Grace, Fitzgerald elected to defend the Leinster town as well. The reason for this decision was apparently that in the previous siege the defenders found themselves very much harassed by batteries sited upon the hills within the town on the Leinster shore. In the interval considerable extensions and improvements had been made to the fortifications on the Leinster side. As we have seen from De la Forest's chatty acquaintance, French Engineer Officers had worked upon them. During the winter Col. Grace had caused to be erected near the North Gate a new and large bastion. No criticism, therefore, can be directed against Fitzgerald for the decision

to deprive the enemy for as long as possible of the use of these battery positions.

Ginkel had his first battery erected to the North-West of Moran's hill by 10 p.m., June 19th. The fire of this battery was directed against the Irish breastworks guarding the ford across the Shannon opposite Brick Island. The earthen mound in the field, now the property of General Textiles and known as the No. 1 Battery, marks approximately where this ford debouched. This battery battered the Irish position for the rest of the day. By about 6 p.m. the siege guns arrived and the Williamites proceeded to the erection of a number of other batteries. The first of these was sited on Scotch Parade, where the Boy Scout's Hall now stands. A second battery was raised near the Dublin Gate. The principal battery of ten eighteen-pounder guns was placed on the slight eminence where the Technical School now stands. Its fire was directed against the new bastion near the North Gate to which we have already referred. It will be noted that it was scarcely 200 yards from the bastion.

The Williamite camp during the siege of the Leinster town was situated along the bottoms and low ground now approximately along by the One Mile Round. The cook houses were situated at Arcadia.

Fitzgerald seems to have held the Leinster town very lightly. The Garrison of the Leinster town does not seem to have comprised more than some three or four hundred men. They were under the command of Brigadier Wauchop. One would have thought that if he intended to hold it at all he would have garrisoned it more strongly than he did. And not only was the Garrison of the Leinster town too small for a serious resistance; no attempt seems to have been made during the assault itself to reinforce them from Connaught, though, as we shall see later, this danger was Ginkel's main preoccupation.

It is possible also that he regarded East Athlone as merely an outwork of the Western defences and that except to deny its gun sites to Ginkel for as long as possible, its defence was not seriously contemplated. In that cae, of course, Fitzgerald was right in not committing too many men to the defence. For one thing he might not be able to extricate them.

The bastion to the East of the North Gate was the point selected for the principal attack.* Fire was opened on it at 8 o'clock on the morning of June 20th. By noon a breach the whole breadth of the bastion had been made, but the fire was continued so as to prevent the Irish erecting a curtain within. At 3 p.m. Ginkel held a Council of War and it was decided to storm the breach at five o'clock that evening. Story has left us the actual order of attack. It was to be launched by 300 grenadiers in four detachments. Having secured the breach two of these were to swing to the right and make

^{*}The remains of the wall of this bastion can still be seen at the back of the houses forming Railway View Terrace and separating it from Court Devenish House. The angle formed by that wall with the wall of Lucas Court is the actual angle of the bastion.

for the bridgehead. Two more were to swing left and work around the ramparts. Stuart's and Brewer's regiments were to support the right flanking move—the Danish regiments of Prince Frederick and Vittinghoss, the left flanking movement.

There was no cover between the battery and the breach and the assault had to be delivered across the paved road that led to the North Gate. Mackay was in charge and placed his Command Post upon the battery. The head of the storming party got too far to the right and halted far away from the breach. It is not clear what caused it to do this but we are told that Mackay ran out to a Captain in Brewer's English Regiment, took him by the hand and led him to the position in which he wanted him. From this it would appear that there was some obstruction to good visibility. It is probable that the smoke from the battery and the dust from the pounded bastion may have combined to create a literal fog of war.

All this had the effect of dislocating the Williamite plan and it meant that what should have been the third party to reach the walls was, in fact, the first. For while the Grenadiers of Cambon's Huguenot Regiment should have been the first party, in the event it was the Grenadiers of Brewer's that jumped into the breach. They got a hot reception. The commander of the Grenadier Company was killed and the Lieutenant Colonel of Brewer's was wounded. Fifteen or twenty of the men fell but Stuart led his Regiment on with a cheer. A musket-ball smashed his arm and he fell wounded; but he had turned the scale and Brewer's and Stuart's between them, pushed the Irish from the Bastion.

The Williamite plan then began to function smoothly and the defenders were driven back by sheer weight of numbers. Indeed, there is a suggestion that once the stormers had gained the breach the defence collapsed rather badly. Story claims that the Williamites obtained their success more easily than they had anticipated. This may well have been so, for they may not have realised that the Leinster town was so lightly held. It seems more likely, however, that the Irish were compelled to withdraw rapidly by the danger of being outflanked. It was clearly no sauve qui peut; for once the bridgehead was reached the defence stiffened once more.

What happened then is very obscure. Of one thing only can we be certain. An Irish detachment held the bridgehead long enough to enable the defenders to interrupt the roadway into the Connaught town. In the first instance we may be sure that this was done by raising the drawbridge. We know from Piers that there was a drawbridge at the Western end of the bridge and indeed Story refers to it in his account of the siege. Apparently not content with the security offered by this, the Irish broke down at least one other arch of the bridge. The authorities are ambiguous. Both the London Gazette and King James say the Irish broke two arches—but this might include the arch broken by the raising of the drawbridge. Neither mentions the drawbridge. It is clear that the demolition of the bridge was

effected by manual labour. None of the authorities mention the use of explosives for the purpose.

Irish historians have inferred from these facts that a stupendous and heroic struggle took place at the Leinster end of the bridge, while to quote the words of one of them "a few paces behind, wielding pick and spade and crowbar like furies were the engineers of the Irish Garrison." I must confess that I was for a long time at a loss to know how such a task—the destruction of a masonry bridge by manual labour in the face of the enemy—could even be contemplated, much less attempted, by a responsible commander. The truth is that no such task had to be performed. In his excellent monograph upon the bridge, Dr. Joly has made it clear that the Irish had not to throw down masonry arches. In the previous year, the then Governor, Col. Richard Grace, had broken an archway of the bridge. The broken arch had been repaired in a temporary manner, by crossing it with wooden joists upon which were nailed planks. Consequently, all the Irish engineers had now to do was to tear up this temporary structure.

While this task was by no means comparable with the first, it still had to be performed in the face of the enemy. It is clear that there can have been no question, as Story suggests, of the Williamites coming on to the bridge and pursuing the defenders "to the very foot of the drawbridge." this had occurred the Williamites would have prevented its demolition. seems equally clear that the attack on the detachment holding the bridgehead was not pressed at all. Had it been, the detachment would have been unable to disengage itself when the moment for retreat came. Indeed, had the detachment been even heavily under fire it would have remained pinned down by that fire and unable to break off the engagement. In either event it would have been unable to get back. It would have had to surrender, or die, with the alternative of death in battle or death by drowning. Now, there is no mention by any authority of the loss of this detachment. There is no mention that any considerable body of men were captured, killed or drowned on June 20th. There is no mention that any considerable body of Irish troops were cut off when the bridge fell. The Irish were quick to raise an outcry about such a happening. Later, at Limerick, there was nearly a mutiny when a French officer raised a drawbridge and left a number of the Irish to their fate outside.

There is another significant fact. On June 23rd the Williamites discovered that there were Irish troops in a mill that stood on the bridge. They attacked it with grenades, set it on fire, and the garrison of sixty-nine men were burned to death. Now we know that the mills were situated at either end of the bridge. This mill must have been on the Leinster end of the bridge, for the Williamites were cut off from the Western end by the broken arches. Furthermore, Story tells us that they learned of the garrison from one of its members—a soldier whom they captured—" nigh the bridge." He must have been captured on the Leinster shore for at that date no Williamite troops had set foot on the Connaught bank. It is not too

clear how these troops got into the mill. The inference from Story is that they were deliberately posted there. On the other hand, it is possible that they may have been some of the detachment that had held the bridgehead and who may have taken refuge there when the bridge was broken. The significant fact about them is that their presence was not discovered until June 23rd. If there was a fight of any severity upon the bridge on June 20th the garrison of the mill, if they were then in the mill, must have been drawn into it. If, on the other hand, they were part of the detachment at the bridgehead, who had taken refuge in it when the bridge fell, it seems incredible that none of the Williamites would have noticed whither they had withdrawn. On either assumption, their unsuspected presence in the mill affords strong evidence that the attack on the bridgehead was not pressed. Furthermore, it seems to provide conclusive evidence, not merely that there was no fight on the bridge on June 20th, but that no Williamite troops set foot on the bridge on that date.

If they did they exceeded their orders. A reference to Ginkel's Operation Orders* show conclusively that his plan follows the doctrine of "limited objectives." His men were to take the Leinster town and no more. Paragraphs 1, 3 and 10 are contained his instructions with reference to the river crossings. The dispositions ordered are purely defensive, with the object of preventing the Irish passing reinforcements across into the Leinster town. There is no hint or suggestion of any attempt to cross the river or to seize the river crossings. The reasons for this are fairly obvious. As far as the bridge is concerned it is supplied by the drawbridge, which would soon halt any Williamite efforts to seize that crossing by a coup-de-main. Then, as regards the ford, while Ginkel was aware of its existence, he was ignorant of its exact extent and depth. Indeed, ten days later we find three Danes risking their lives to ascertain this information for him. Moreover, even if he were prepared to risk its uncertainty, on emerging from the river he would be faced by the unbroken defences of the western shore. It is clear that the passage of the Shannon on June 20th could never have been contemplated by a prudent commander—much less by an over-cautious general like Ginkel.

On the contrary, the Williamite troops had orders to "dig in" on the Leinster bank and these orders they obeyed. Story himself (who apparently relied upon the fact that his readers would not have sufficient knowledge of the military art to detect the inconsistency in his tale) tells us that the Williamites "covered themselves at the foot of the bridge."

Story's account, however, contains other facts, that, at first sight, seem to be inconsistent with the contention that there was no fight for the bridge on this date. Some of the Irish, he says, were "crushed to death" against the sides of the bridge and a few were forced over the sides of the bridge. In so much as this is confirmed from other sources it must be accepted as

^{*}These are to be found in Story : Continuation.

generally correct. In a letter written "from the Camp at Athlone" and dated June 22nd, Ginkel tells Coningsby that he "has rescued two or three of the enemy, wretchedly wounded, some from the bridge and some out of the water; amongst others a Lieut.-Col. Luttrell, who had been pushed from the top to the foot of the bridge by the press of his own men." Another authority described the finding, on June 24th, by a soldier of Lisburne's regiment, of a pair of colours in the water under one of the arches of the bridge.

These facts are not, however, necessarily inconsistent with my contention. In demolishing the arch, the Irish engineers must have provided some means of escape for the rear-guard holding the Leinster end. It seems most probable that in order to do this they would have left a few planks to form a foot-path or gangway for their retreat. It may even have been a single beam. In a last minute scramble across such a gangway, unprotected by handrail or parapet, it is easy to visualise men slipping or being pushed off or falling off when struck by the enemy's fire. Such casualties would fall into the water, or amidst the broken masonry at the foot of the bridge—a mishap which would aggravate any wounds they had already sustained, so that they might well be described as "wretchedly wounded."

This explanation would fit in with the presence of "a few" wounded and even a pair of colours under the bridge. It is not inconsistent with those other conclusions to which we have found ourselves irresistibly compelled by the logic of events; namely that not merely was there no battle on the bridge on June 20th, but that the attack upon the bridgehead was not even pressed. That is the only assumption that fits all the facts. On any other assumption it would have been impossible for the arch of the bridge to have been broken. On any other assumption the garrison of the mill must have been discovered. On any other assumption the detachment that held the bridgehead must have been lost.*

The news of the fall of east Athlone reached St. Ruth late on the night of June 20th as he lay encamped with the Irish Army at Ballinasloe. Next morning, early, he set out post haste for Athlone with fifteen hundred horse and dragoons, the rest of the army following during the course of the same day. St. Ruth encamped along the Esker ridge at Monksland. Ginkel, for his part, moved his camp nearer to the Leinster town. The new camp ran

^{*}This reasoning is substantiated by Mackay in a passage which I have only discovered since I delivered the lecture.

He discloses that at this stage the attack on Athlone was only a feint not intended to be pushed beyond the capture of the Leinster Town. The main thrust was to be delivered at Banagher where the Irish Commander was in Ginkel's pay. The capture of the Leinster town of Athlone was undertaken with the twofold purpose, firstly of inducing St. Ruth to commit his reserves at Athlone and secondly with the purpose of masking that town to prevent a debouchment by the Irish Horse from it against the Williamite lines of communication. Later the Williamite Commanders found themselves gradually drawn into the attempt to cross the Shannon at Athlone itself.

from Moran's Hill all over the ground now occupied by St. Mary's Rectory, Garden Vale, and St. Francis Terrace and including the hill where the C.I.E. Goods Yard now stands.

The siege of the Connaught town, unlike that of the Leinster, is in no way obscure. Every incident has been clearly recorded by one historian or another—much of it by eye-witnesses to the events.

The fortifications of west Athlone had been fully modernised and brought up to date. The hub of the defence was at the bridgehead, where the Castle stood dominating the crossing of the river. In general outline it resembled then the form it has to-day. Phillips's survey includes an elevation of it. The entrance was at the north-east corner and the Castle was then surrounded by a ditch. We shall see that during the siege it took a terrific pounding from over fifty eannon and eight mortars. When the Williamites had eventually taken the Connaught town the castle was still defiant and according to Parker "was crowded with men; and though we had battered down that face of it which lay to the water yet the other parts remained intire [sic] and had a number of men in them." In addition to the Castle there was another substantial fortification, known as the Connaught tower, the masonry of which was so solid that a Williamite engineer says it took more time to bring down than any part of the Castle. This stood to the north of the castle approximately where the Grace Road now enters the Market Square,

All along the river bank facing the Leinster shore there stood a series of works stretching from where the Lock Gates now are along the river bank to the north end of the Church of SS. Peter and Paul. At each end of this line of bastions the fortifications turned west.

The wall ran approximately due west by St. Peter's Port as far as the angle now formed by Chapel St. and Goldsmith Terraee. There it turned north and crossed the end of Bastion Street, where it merges into O'Connell Street, thence aeross Pearse Street to the east of the Protestant Paroehial Hall and out into the Barrack Square, where it met the wall running west from the north end of the river line. From this wall there projected a series of bastions. The first of these was at the angle of Chapel Street and Goldsmith Terracc. The next and the largest had its apex at the west end of Bastion Street. A third projected from the junction of Barrack Street and Connolly Street, in the direction of the Protestant Parochial Hall.

These three bastions and the walls to the west were valueless in the operations now taking place. Indeed they only served to hinder the Irish troops entering to the relief of the town. For this reason their demolition was urged by Tyrconnell, who argued that if, by any chance, the Williamites did get into west Athlone these fortifications would prevent the Irish from expelling them. The event was to prove him sorely right. Some authorities say that St. Ruth (who disliked Tyrconnell) resented his advice. Others say that he accepted it and ordered the demolition of the fortifications

facing to the west. These last authorities likewise vary in the reason which they give for the failure to demolish the works. Some say that d'Usson neglected to obey St. Ruth's positive order. King James states that he refused, saying that the King of France, his master, had entrusted him with the defence of these fortifications—not their demolition. One thing only is certain: these works were not levelled and dearly did poor Ireland pay for the failure to do so.

In addition to these formidable defences, the Irish had trenches both within and without the walls and throughout the siege they continued to raise breastworks and to dig trenches to counter the activities of their enemies.

With the arrival of St. Ruth, Major-General d'Usson was given command of the defence. Major General Maxwell was, in some sense, his assistant and Brigadier Wauchope (whom we have already met as Commandant of the Leinster town) became Commandant of the Castle. The garrison too was relieved and henceforth the infantry and dragoon regiments of the Irish army took turns in mounting the trenches. The system was for three or four regiments (according to strength) to mount the trenches at one time. These were relieved every twenty-four hours—subject, of course, to the exigencies of the fighting.

The task before Ginkel, therefore, was no easy one. He had to force a passage across a wide and deep river protected by strong fortifications and in the face of an army which was in all respects, save artillery, the equal of his own. There were many contemporaries who believed it to be impossible. St. Ruth said that Ginkel deserved to be shot if he attempted it. Parker said "The undertaking seems rash and almost desperate to everyone but themselves even though the river should prove to be fordable."

Mackay, though he led the storming party which ultimately took the town, believed it to be impossible to capture Athlone by force. He favoured taking it by stratagem and when this failed he was for abandoning the attack.

To achieve his objective, therefore, Ginkel's plans fell into two categories. First there was a terrific preliminary bombardment with a view to softening up the defences. This was followed by a series of attempts to cross the river, first by trick and then by force, all of which failed. Finally, in a last effort and due largely to the overweening folly of St. Ruth himself, Ginkel achieved a tactical surprise and took the town.

Scarce had the Leinster town fallen on June 20th than Ginkel began to erect his batteries. On that evening three guns were brought from the battery that had been erected north-west of Moran's Hill and nine more from the large battery at the Technical School. They were taken within the walls of the Leinster town.

On June 21st eleven guns and three mortars were brought up from Ballymore and the remainder of the guns from the batteries that had been

erected outside the walls. A battery of five 24-pounders was erected approximately where Abbey House now stands. By the early morning of the 22nd these batteries were completed and by six a.m. they had opened fire on the north-east side of the castle where the wall was weakest. By seven p.m. that evening a breach had begun to appear in the castle wall at this place and throughout the night that followed the guns and mortars concentrated their fire in order to widen it. By five a.m. on June 23rd they had the whole north-east corner of the castle battered down and the entrance itself so blocked with rubble that the Irish were compelled to open a new entrance on its west side. On June 24th, three further batteries were raised—one below the bridge, another above it and a third outside the walls below the town on the river bank. On June 25th still another battery of six 24-pounders was erected on the river bank below the bridge and on June 26th a further battery of five guns was erected in the meadow below the town. There were now, in all, eight batteries of guns and one of mortars firing into the Connaught town.

A feature of the Williamite batteries was that they were raised to a considerable height which enabled them to fire down upon and into the Irish trenches. In a letter to the Countess of Antrim, Col. Felix O'Neill states that "they raised their batteries and trenches so very high that a cat could scarce appear without being knocked in the head by great or small shot." This is confirmed by Parker who says that the Williamites "caused the entreuchments on the river side to be raised very high with embrasures for fifty battering cannon."

The bombardment of the Castle continued throughout the 23rd, 24th, 25th, 26th and 27th. At the same time another battery south of the bridge was firing on the breastworks and entrenchments of the Irish opposite to them while the batteries in the meadows south of the town contained the Irish within the walls on the south side.

In a letter to Rawdon from the Williamite Camp, McNeale states "we have battered the Castle all down on this side and have so cannonaded the enemies' part of Athlone as I believe never town was. We have laid very level a great part of the works to the water side Our carcasses burnt all the thatched houses in the enemies' quarters." A Carcass is described by the Marquis de Feuquières as "an invention of an oval form and made of iron ribs and filled with a composition of meal powder, saltpetre, sulphur, broken glass, shavings of horn, pitch, turpentine, tallow and linseed oil and then covered with a pitch cloth; it is primed with meal powder and quickmatch and fired out of a mortar." It was the incendiary bomb of its day.

On June 28th the Castle being well battered the guns turned on the Connaught tower, which was so solid that it took longer to breach than any one part of the castle. During the siege the Williamite expenditure of ammunition was very lavish. Story tells us that they fired "twelve thousand cannon balls, six hundred bombs, nigh fifty 'tun' of powder and

a great many 'tun' of stones shot out of our mortars'. It was the heaviest bombardment in the history of Ireland. Nothing like it was ever seen in Ireland before and, curiously enough, nothing like it has ever been seen since. Its effect may be judged by what Col. Felix O'Neill (who was in the town) has to say of it "the place was so ruined and the passage so filled up with lumber and stones that there was not room for two men in a breast to march either way."

When the Williamite storming parties ultimately set foot on the Connaught shore "the lumber and stuff thrown down by our cannon was more difficult to climb over than a great part of the enemies works which occasioned our soldiers to swear and curse even amongst the bullets themselves."

The scene must have been grim indeed. We are told that it had been a glorious summer. Never, in living memory, had the Shannon been so low. The fine weather continued throughout the siege. Every morning the sun rose in a cloudless sky, and day after day of blazing sun and grilling heat added to the discomforts of the besieged. The roar of the bombardment, which never ceased day or night, the crash of the falling shot, the still louder crashes of the tumbling masonry, the dust from the debris, the smoke and flame and heat from the burning houses, must all have combined to create a scene of terror and confusion sufficient to daunt the stoutest heart.

But the defenders never flinched. They worked with heroic and indefatigable industry to repair the damage caused by the bombardment. Even their foes pay tribute to their efforts. In a letter written to Rawdon from Athlone, McNeale tells him "the defenders were working like horses in carrying fascines to fill up the breach, in which they showed much courage."

Nor was this defence content to be supine. To the bombardment the Irish made a spirited reply though "they had no other artillery but a few field pieces." Indeed, when the town was ultimately captured there were found in it but "six brass guns and two mortars." Poor though this armament was in contrast with that possessed by Ginkel, it seems to have given a good account of itself. Parker describes how he himself "received a favourable shot on the crown of his head" while mounting the trenches. Later he complains that the Irish "had annoyed us with their small arms and a couple of drakes." On the 24th June the Irish raised two batteries above the Castle—one of four guns close by the river, the other of three guns some distance further back on a rising ground. Despite the fact that the batteries were only six-pounders they compelled some of the Williamite regiments who were encamped near the river to shift their ground. They did more. They broke up a Williamite attempt to assemble a pontoon-bridge and throw it across the river.

This called for counter-battery measures and some of Ginkel's batteries were compelled to shift their targets and lay upon the troublesome Irish

batteries. By June 28th McNeale tells Rawdon "The heavy fire has dismounted all the guns on the other side."

On the night of the 25th-26th June, Ginkel began to force a passage across the river. On this night the Williamites re-captured two arches of the bridge; but it was stern work. Story says "what we got here was inch by inch." McNeale writes, "that two Captains, two Ensigns and three Lieutenants were killed," in this struggle. This predicates a loss of some seventy or eighty men killed and probably three times that wounded—a heavy toll to exact for the possession of two arches—one broken.

The broken arch was repaired and a breastwork of fascines erected on the west side of them to protect them from the Irish fire.

That fatal western arch, however, was still denied to Ginkel. Until he held it and could cross it he was little further on. Sunday, June 28th, saw the fight for the bridge reach its climax. "About one in the morning," writes Stevens, "the enemy, creeping over their barricades of faggots on the bridge, made up the broken archway with their planks both sides plying their small shot and hand grenades without intermission."

It is clear from this that the arch was not planked unknown to the Irish. Most writers convey the impression that it was. This sentence, therefore, acquits the Irish of keeping the indifferent watch that this impression would predicate. But if it does, it also clearly demonstrates how completely the Williamite covering fire was able to beat down the fire of the defenders.

The repairs seem to have been effected by bridging the gap with beams and by then laving planks across them to form a decking. Both Plunkett and Story agree as to this. They agree also that the decking was not completed. But they are silent as to the manner in which the beams were secured or the method used to fasten the planks to them. In this connection, however, King James uses two words that are highly significant. Describing the achievement of Custume and his comrades the King says: "With courage and strength beyond what men were thought capable of, they threw down the planks and beams." One might be disposed to construe the word "strength" as being ejusdem generis with "courage", were it not for its association with the word "threw." The obvious inference is that the extraordinary strength was required to thrown down the timbers. This in turn presupposes that the beams were of considerable weight. It is significant too that the word used is "threw"; for it certainly conveys no suggestion of tearing up spikes or other fastenings. On the contrary, it connotes a simple dislodgment. It is possible, therefore, to infer from this, that the Williamite repairs were effected without any fastenings or ties and that Ginkel's engineers simply relied on the weight of the beams to keep them in place; thereafter planks were laid loosely across the beams and maintained in position by gravity alone.

But even when this is admitted, it must be acknowledged that, by

planking the broken arch, the Williamite engineers accomplished a feat for which they have never got the credit they deserve. By their skill and gallantry they had placed Ginkel on the verge of a great success. It must have seemed to the Dutchman, as it did to the Irish, that Athlone was in the hollow of his hand. But heroism begets heroism; "and one great hero fans another's fire." If the stout hearts and sturdy arms of the Williamite engineers seemed to have placed the cup of victory in Ginkel's hand, the heroic self-sacrifice of two small detachments of Maxwell's Dragoons was to dash it from his lips.

Very many Irish writers have described the events that followed with a wealth of detail and an embellishment of fact that is more credit to their patriotic zeal than to their regard for accuracy. As a result it is hard to distinguish between what is fiction and what is fact. This can only be done by reverting to the contemporary authorities. They differ in details, but it is possible to form a coherent picture from them.

Most important of these is the account by King James himself. To him we are indebted for the preservation of the gallant screeant's name. "One Custume," says the King, "with eight or ten men proffer'd to pull them (the planks) down again; this was joyfully accepted." Thus we learn not merely his name but the fact that he and his comrades volunteered. Story supplies us with his rank and regiment. "They detached a Sergeant and ten men out of Brigadier Maxwell's regiment." To the same authority we are indebted for the fact that "these were all in armour." Stevens described them "getting over our work of faggots on the bridge."

These simple words fail, however, to convey the tense and poignant atmosphere that must have prevailed amongst the Irish detachment at the bridgehead. As the chosen band slipped across the Irish breastwork, what fears, what anxieties, what forebodings must have attended their desperate enterprise. To their comrades, waiting by the bridgehead, the task they had undertaken must have seemed well-nigh impossible. Yet their king, their country, their faith, the future of all depended upon them and this chance that seemed worse than last—upon this hope that was less than forlorn. But, in the face of a heavy fire from the Williamites, Custume and his men stuck to their task; "with courage and strength," writes King James in the passage already quoted, "beyond what men were thought capable of, they threw down the planks and beams, notwithstanding the continual fire of the English."

While thus we are able to piece together from the different authorities a story fairly abundant in details, there are, at the same time, grave lacunae. For example, we are not told of any Irish covering fire. And yet, as sure as there were Irish troops in the vicinity of the bridgehead, just as certainly those troops must have laid down a considerable covering fire upon the Williamite fascines across the disputed arch. The object of such fire was to force the Williamite marksmen to keep under cover, thereby lessening the

accuracy and volume of their fire. The omission, by contemporary writers, of any mention of it is, without doubt, because it was regarded as an obvious fact.

The authorities are equally silent as to what period elapsed between the time Custume's detachment crossed the barricade and the moment when the last of them was shot down. But it must have been some minutes at least to enable them to destroy so much. Neither are we told the extent of the destruction wrought by them. It is possible, however, by means of a rough calculation based on the relative strength of the two detachments, to place it at a third. And to demolish a third of the structure predicates some minutes survival for the detachment.

We are not told how they managed to survive the Williamite fire for so long. Indeed, the reader is tempted to wonder by what miracle they survived the enemy's first discharge. Heavy though the odds may have been against them, they were not as heavy as most historians have represented. In the first place they wore armour, and against the smooth-bore weapons of the day it was very effective. To kill it was necessary to penetrate some vital chink. In the second place, the Irish would have had, for the first few seconds, the advantage of surprise. The very audacity of their move would have caught the Williamites off their guard. Then, after the first discharge, they would have had the benefit of a smokescreen—not specially and artificially created to hide them as it would be to-day; but one which naturally resulted from the gun-powder of those days. Indeed, it was to this that the two survivors of the second detachment owed their immunity, for Story refers to "two who escaped amongst all the fire and smoak."

Finally, it must be conceded that the total volume of fire to which they were exposed, severe though it was, fell far short of that usually attributed to the Williamites. "The grim Dutch gunners eved them well" says Aubrey de Vere, and his lines have helped to perpetuate a fallacy—a fallacy too which has been repeated by many historians who cannot plead "poetic This is the suggestion that Custume and his comrades were exposed to the whole force of the Williamite bombardment. So far was this from being the case, that it is highly improbable that a single Williamite cannon was laid upon the bridge. In the first instance, from what we know of the position of the Williamite batteries, no gun could have been brought to bear upon the broken arch-and certainly not without destroying the Williamite fascines on the bridge and the troops manning them. In the second place, turning their guns upon the bridge would have defeated Ginkel's own end; for it would have destroyed the planking far more certainly than Custume's detachment.

All this is stated not to belittle Custume's achievement, but to explain how it was he achieved so much; not to detract from his heroism, but to show how it was that his heroism was not in vain; for to such an enterprise there could be but one ending. We are not surprised to learn from Story that they "were all of them slain," although he adds: "This did not deter as many more from setting about the same piece of service."

No doubt it is the phrase "as many more" that has given rise to the widespread belief and the frequently encountered statement that the second detachment likewise comprised eleven men. The "Diary of the Siege of Athlone," however, says that the second detachment consisted of "a Lieutenant and twenty more." Even if Story's statement was not merely a general one intended to indicate the approximate strength of the detachment, we can hardly accept it against the "Diary" for the anonymous author of the latter was a Williamite engineer officer, and he is more likely to be accurate as to the details of the destruction of a work in which he, as an engineer, would have taken a special interest.

While not explicitly saying so, Story certainly conveys the impression that the second detachment were likewise volunteers drawn from Maxwell's regiment. It is certainly to be inferred from the context, and in the absence of positive evidence to the contrary, must, I think, be accepted. Story is no more explicit upon the question of whether this detachment donned armour; but again, in the absence of a positive statement to the contrary, it must be assumed that they did. As this second detachment slipped across the Irish breast-work they must have come at once under a heavy hostile fire; for this time the Williamite musketeers and grenadiers at the bridgehead would have been expecting a renewal of the attempt. But "notwithstanding the continual fire of the enemy," says King James, "they held it out until they had finished their work, though most of them were killed in the action." "They effected it," says Story, "by throwing down our planks and beams, maugre of all firing and skill." And he adds the tribute as unexpected as it is generous: "They all lost their lives as testimonies of their valour, except two, who escaped amongst all the fire and smoak." The remainder had joined Custume in the glorious sacrifice that has made his name immortal. But they died not in vain. The task had been accomplished. The last plank, the ultimate beam, was floating down the Shannon.

If the Irish thought that this set-back would deter the attackers they were mistaken. That afternoon the Williamites set fire with their grenades to the fascines that comprised the Irish breast-work. Story claims that this occurred during the night, but our old friend John Stevens (who was stationed with his regiment in the trenches "on the left of the bridge" and who had very good reason, as we shall see, to remember all about it) says: "Some time before noon the enemies, with their grenades, fired our faggots on the bridge, which being very dry and not covered with earth burnt most furiously." The fire spread to the mill at the end of the bridge and from that to the houses on the western bank of the river. Stevens describes the scene in graphic style: "I was commanded with a detachment of forty men of our regiment, and other officers of other regiments in the town with proportionate numbers of their men to put a stop to the fire which, notwith-

standing all our endeavours, raged so violently that it took hold of the houses adjoining the bridge. The enemy, in the meanwhile, bent thirty pieces of cannon and all their mortars that way, so that what with the fire, and what with the balls, and bombs flying so thick, that spot was a mere hell upon earth; for the place was very narrow which made the fire scoreh and so many cannon and mortars incessantly playing upon it there seems to be no likelihood of any men coming off alive. However, we threw down one house, and the men being hasty to run off with the timber for their own security, that gave a stop to the progress of the fire which then began to decline till it quite ceased. We had very many men killed here of the detachments that came to work . . . and this, I think, was the hottest place I ever saw in my time of service. Many who had served long in France said that they had never seen such furious firing for so long a time; and beside the bombs, the enemies threw out of their mortars a vast quantity of stones; besides that the place being so close the cannon balls which struck against the eastle walls beat off abundance of stones from them which did as much misehief as the other Seven of my detachment were killed and nineteen wounded and I received no hurt myself, yet returning to my post in the trenches I was knocked down by a stone which flew from the castle wall, which only stunned me, a good beaver I had on saving my head."

The only comment that it is necessary to make upon this is to say that Stevens was a soldier who had Continental experience, and had stood with his regiment upon the breach at Limerick on that glorious day when Boisseleau's, The Grand Prior's and Slane's had repelled the Williamite stormers.

Foiled in his attempt to bridge the gap, Ginkel devised a new plan. He would mount a three-pronged assault. Stormers would cross the ford below the bridge. While they were doing this a bridge of boats would be thrown across the river and a body of troops would cross into the King's Meadows. Simultaneously, another storming party would make one more attempt to seize the fatal arch, to facilitate which a close-gallery would be constructed upon the bridge. Finally, to encourage the stormers, a bag of guineas would be distributed amongst them.

Meanwhile, three Danish soldiers under sentence of death were given the opportunity to redeem their fault by trying the ford. They put on armour and entered the river "at three several places some distance from each other" says Parker, adding "our men in the trenches were ordered to fire seemingly at them, but yet over their heads; whenee the enemy concluded them deserters and did not fire at them until they saw them returning; but our great and small shot in the trenches being prepared at this instant we fired incessantly over our men which obliged the enemy to keep down their heads. The deepest part of the river took them up to the navel but it had not been known so low in the memory of any living."

[&]quot;That night (June 28th) orders," says Story, "were given out that

forty-three grenadiers, eighty-three private men, three captains, five lieutenants, two ensigns and seven sergeants out of each regiment with fifteen shots a man and everyone with a green bough in his hat should be ready by six a clock in the morning under the walls of the town, all to be commanded by Major General Mackay; but the whole to be done with the greatest silence and secrecy imaginable."

The secrecy was not observed. The Williamite officer Kane tells us "this detachment march'd openly in our works, at which all the hills on our side were covered with spectators to behold this Action." He adds: "This brought St. Ruth, with his whole Army down to the back of the town and crowded it with as many men as it would hold." Plunkett gives a different version. He says that on that night a deserter swam the river and warned the garrison with the result that when the stormers assembled, the Irish army could be seen marching into the town. The attack had already been delayed four hours owing to difficulty in getting up the pontoons.

St. Ruth seems to have been a man of little subtlety or he would have passed the reinforcements into the town less ostentatiously. Had he done so he might have lured Ginkel into an attack that would have ended disastrously not merely to the Dutch commander but to the whole Williamite cause.

Faced with a crossing in the teeth of the whole Irish army Ginkel hesitated; and while he did so his doubts were resolved for him by another calamity. Taking a leaf out of their opponents' book, the Irish grenadiers on the western end of the bridge set fire, in their turn, to the fascines on the Williamite side of the broken arch.

Stevens says: "Two Officers and five soldiers of ours venturing up to the enemies' faggots on the bridge set them on fire and the wind favouring us, destroyed them all." This fire spread until it consumed the close gallery and the Williamites only managed to retain their grip upon the bridge by throwing up a second breastwork of fascines some distance to the east of the burning gallery. Stevens adds: "Four of the seven returned safe." Such audacity speaks well for the morale of the defenders.

The attack was called off. The storming parties stood down. But significant fact—the detachments were ordered to remain intact and their personnel was not to be dispersed to their regiments.

On the Irish side there was great exultation. The very private man jeered and taunted the Williamites with their failure. Some wag on the Irish side shouted across the broken arch and asked the discomfited enemy if they intended repaying Ginkel his guineas seeing they had done so little to earn pennies. St. Ruth in particular was confident that the siege would be raised and arranged for a banquet to celebrate the success. He relieved the troops who were mounting the trenches and sent them back to the camp for rest. Unfortunately, to replace them he selected three Irish regiments of which two, according to Plunkett and King James, had only been

recruited during the previous winter. These were the regiments of Col. Oliver O'Gara and Col. Anthony McMahon. It is difficult to understand this. O'Gara's-formerly Col. Irel Farrell's-appears in the army lists from 1689. Anthony MacMahon's appear from the beginning of 1690. Possibly the explanation is that while not newly raised, the regiments had been rebuilt during the winter and consisted largely of recruits. It is said that d'Usson objected and wanted to retain more experienced troops in the defence but that St. Ruth over-ruled him because he was anxious to give them some experience in battle. No doubt, too, St. Ruth felt that the presence of Cormac O'Neill's regiment would provide the necessary stiffening for the defence. This was one of the veteran regiments of the Irish army. As far back as 1689 it had formed portion of the Garrison of Carrickfergus and had there acquitted itself with credit. Since then it had fought at the Boyne and Limeriek and probably its men had taken their share in the guerilla activity of the previous winter. Stevens, who saw the regiment on June 3rd speaks of it as "about 900 men as lively, clever, lusty well shaped fellows as ever eyes beheld." Now in their third year of campaigning they might safely be depended upon to provide the defence with a leaven of steady veterans.

If eonfidence reigned supreme in the Irish camp, on the Leinster shore the Williamites "had but a dismal prospect." Mackay was very definitely opposed to a further attack and believed it would be beaten off with great loss of life. In this impasse Ginkel held another Council of War. The international composition of this Council is interesting. It consisted of the German Lt.-Gen. The Duke of Wurtemburg, the English Major-Gen. Talmash, the Scottish Major-Gen. Mackay, the Danish Major-Gen. Tettau, the Dutch Major-Gen. Count Nassau, the German Brigadier the Prince of Hesse-Darmstadt, the French Brigadier La Mellonière. It was presided over by the Dutch Lt.-Gen. de Ginkel. Neither before nor since has poor Athlone seen such a wealth of international military talent.

The position of the Williamite army was bristling with difficulty. It could not remain where it was; food and forage were running short in the locality. It could not attempt the passage of the Shannon elsewhere; if it did it would expose its communications to St. Ruth who would strike between it and Dublin. It could not retreat leaving Athlone uncaptured; if it did the effect upon the wavering loyalties in England coming on top of the rebuff before Limeriek the season before, might be fatal to the Revolution. In any case William's commitments on the Continent required that he should bring the campaign in Ireland to a close with the utmost expedition. Yet the view of experienced soldiers like Mackay was that an attempt to force a crossing at this stage would only end in disaster. By a narrow margin the Council decided to make the attempt and Mackay, though he disapproved of it, claimed the right of leading it.

In the hope of achieving a tactical surprise considerable subtlety was

employed on this occasion. The Williamite guns had ceased to fire from the time of the abortive assault the previous day. Parker says that "our army lay very quiet both in camp and trenches all that night (29th June) and the next day without firing a shot great or small in so much that it was generally believed on both sides we should make no further attempts here but endeavour to pass at some other place. And indeed it looked something like it, for next day we were drawing off our cannon and mortars, and all combustible materials out of our trenches, and that after such a manner that the enemy might easily perceive it. This confirmed St. Ruth in his security." Stevens confirms him. "Monday 29th. After this" (the burning of the close gallery) "the enemy fired only some odd shot all the day and continued as quiet the night. Tuesday 30th, most of the day passed in silence."

Still further to lure St. Ruth into security it was arranged that the storming party should enter the town at six o'elock—the usual hour for relieving the trenches. "Sentinels were posted on all the hills that looked towards the enemy to prevent anyone from apparing thereon." St. Ruth was thus prevented from discerning the enemy's intention and thus their movements remained hidden in the 'fog of war.' Uunfortunately too, they were rendered still more obscure by that even more impenetrable fog that comes from over-confidence. For St. Ruth was only too ready to believe that the Williamites were defeated. He gave his banquet and tradition alleges that it was there that he boasted that Ginkel deserved to be shot by his master for attempting to take Athlone while he (St. Ruth) deserved to be shot if he lost it. Tradition also alleges that it was in the middle of this banquet that St. Ruth was interrupted by an urgent message from Maxwell, stating that he observed disquieting signs on the Leinster bank. Whether this took place or at the banquet or not, Berwick in his Memoirs states that when Maxwell sent for reinforcements alleging that he observed something suspicious on the Leinster shore he was told if he felt frightened to hand over to another General Officer. Commenting upon this Col. McCartney Filgate says: "This is a class of reply which is encountered more than once in military history and nearly always ends in proving the error of any man who disregards stated facts, looks for false motive, and does not carefully consider the full meaning of the message sent."

As six o'clock was striking the Williamite stormers entered the Leinster town. At six minutes past six the bell of St. Mary's Church tolled the signal for the attack. The first party of stormers entered the ford which was opposite Barnett Street. They comprised sixty grenadiers of Col. Gus Hamilton's regiment under the command of Capt. Sandys and two Lieutenants. They entered the river "at the foot of Barnett's slip or street," twenty abreast. They were supported by a further party of thirty grenadiers and these were followed by the equivalent of six battalions. Once again Mackay was in command of the stormers and with them went Wurtemburg (who was borne on the shoulders of the grenadiers), Tettau, the

Prince of Hesse-Darmstadt and Brigadier La Mellonière. They found the stream deep and rapid, and river bed encumbered with large boulders over which they slipped and stumbled. The Irish were taken utterly by surprise and seem completely to have lost their heads. The Williamite stormers had actually got a good way across the river before the Irish recovered from their surprise and fired a ragged volley. Then the English covering fire crashed down. Every gun from the Williamite batteries, and every musket from the trenches that could be brought to bear, opened upon the defenders and continued firing until the Williamites had gained the Connaught shore. The result on the raw Irish regiments was disastrous. Making all allowances for the effect of surprise upon their inexperience their conduct is inexcusable. Whole companies flung down their arms and fled, abandoning, without a shot, the works which their comrades had died so heroically to preserve. shameful was the panie that d'Usson, hastening to the town ou the first alarm "was borne down and run over by the men that fled." Talbot's regiment coming up quiekly to the relief passed them seattered "in great confusion over the bog," to the west of the town.

So far from steadying the raw regiments, in this disgraceful panic the regiment of Cormae O'Neill seems to have taken the lead. Col. Art McMahou died gallantly trying to stem the rushing tide. Lt.-Col. O'Gara fell attempting to rally the shattered remnants of his broken regiment. But Lt.-Col. James O'Neill was among the first to flee. He was broken a week later before the picket guards of the army paraded for that purpose and condemned to earry a musket in the regiment he had dishonoured, "for quitting his post," says Stevens, "and running away shamefully at Athlone which either was the cause or contributed much to the losing of that town, the whole regiment by his example basely abandoning the works and flying in disorder." Thereafter he sinks into an ignoble oblivion. Unfortunately he was not unique in his dishonour, for five of his Company Commanders were broken with him.

It is not difficult to imagine that the Williamites, as they claim, met with more difficulty from the shattered rubble eaused by their bombardment than from the enemy! They stormed the breastworks upon the river bank. Maekay swung left to clear the ramparts to the south. Tettau swung right to perform a like service to the north; while Lt. Col. Collumbine led a party to the bridge to repair the broken arch. All three accomplished their missions with little opposition, though Collumbine was wounded. Maekay and Tettau joined hands on the western ramparts and, below the town, horse and foot were streaming across the pontoon bridge and forming in the King's Meadows. The time was 6.36 p.m.

A bare thirty minutes had elapsed since Gus Hamilton's grenadiers had stepped off Barnett's slip and in all Athlone the eastle alone remained in Irish hands. Nor had this success exacted a heavy toll in the lives of the attackers. Twelve private soldiers killed, four officers and twenty other

ranks wounded. This was the trifling cost that Ginkel had to pay for the Connaught town.

Maxwell was captured and unfortunately Col. Richard Grace was amongst the slain. It has been stated before this Society that his body was interred in St. Mary's Protestant Church and that there a fine tomb was creeted over his grave. Tradition has always supported this. All I can say is that in so far as the monument is concerned there seem to be no grounds for the belief. A member of the Society, Dr. J. B. Burgess, has made a study of the records of St. Mary's Parish. He informs me that he has never found anything to support the contention. On the contrary, Isaac Butler, who visited Λthlone in 1744, faithfully records the monuments in the Church. There were only three. Grace's was not amongst them.

St. Ruth reacted violently. Stevens tells us "on a sudden the whole camp was alarmed and we marched down to within a mile of Athlone." There they encountered a Williamite force under Col. Gus Hamilton, who had pushed a reconnaissance towards the Monksland camp. The Jacobites handled them very roughly and drove in Hamilton's reconnaissance with considerable loss. It was a taste of what the Williamites might have experienced, had d'Usson levelled the western ramparts. But once the Irish came up against the walls of Athlone they were helpless and, says Stevens, who was there with his regiment, "could do nothing—the defence being strong on the land side."

The full magnitude of this blunder now becomes apparent. Brigadier Kane refers to "the great oversight St. Ruth committed in leaving the works on the back part of the town standing." Parker (who went with the storners as a volunteer and speaks with first-hand knowledge) records that St. Ruth found "when it was too late that he had been guilty of a great mistake in leaving the works . . . in good repair for these were now a defence for us against himself. Had he destroyed those works we should never have been able to defend the town against the whole army especially as the castle still held out."

Berwick tells us that John Hamilton led out two brigades of Irish infantry but "found the rampart lined with the enemies' troops and was obliged to return to camp."

Next day St. Ruth struck his camp and marched to the west. All hope being gone the Garrison of the eastle surrendered. Brigadier Wauchope and five hundred men laid down their arms. Athlone had fallen. Ginkel's grenadiers had earned their guineas after all.

LIST OF AUTHORITIES.

With one or two exceptions, I have relied upon contemporary or sub-contemporary sources. I felt there was a danger that subsequent authorities might have given their own interpretation to the faets, and this of course would be fatal to any critical examination of the evidence with a view to the determination of what took place. Where I have utilised modern writers, such as D'Alton, Boulger, and Langrishe, the quality of their scholarship justifies the selection.

Piers, Sir H.—Chorographical description of the county of west Meath. 1682. In Vallancey, Collectanea, vol. 1. Dublin 1770.
Woods, Jas.—Annals of Westmeath. Dublin 1907.
Joly, Rev. J. S.—The Old Bridge of Athlone. Dublin 1881.
To these three I am largely indebted for information about the Town, the Bridge and the Walls.

Story, Rev. G. W.—An impartial history of the wars of Ireland with a Continuation thereof. London 1693. Parker, Capt. R.—Memoirs of military transactions from 1683 to 1718. Dublin 1746.

Mackay, Gen. Hugh.—Memoirs of the var carried on in Scotland and Ireland, 1689—1691. With Appendix of original papers. Edinburgh (Bannatyne Club) 1833.

Kane, R., Brig.-Gen.—Campaigns of King William . . . London 1747.

These four books are by Williamite officers who were present, and took part in the siege. Mackay led the stormers who took the town.

Diary of the Siege of Athlone, by an Engineer of the Army, a Witness of the Action. London 1691.

(Photostat copy in National Library, Dublin).

The Rawdon Papers: with notes by the Rev. E. B[erwick]. London 1819.

Correspondence of Geo. Clarke, Secretary of War, 1690—94. 13 vols., manuscript, in Trinity College

Library, Dublin.

Letters of the Baron de Ginckell. Calendared in Hist, MSS. Commission, 4th Report, 1874: Appendix p. 317, Manuscripts of Lord de Ros.

London Gazette, June—July 1690.

The Journal of John Stevens. Edited by R. H. Murray. With Bibliography. Oxford 1912.

"A Light to the Blind": in Gilbert, J. T.—A Jacobite Narrative of the War in Ireland, 1688—91. Dublin 1892.

O'Kelly, C.—Macariae Excidium. Irish Archaeological Society. Dublin 1850.

These three are by contemporary Jacobite officers. The last is thoroughly unreliable, as the author is so blinded with hatred of Tyrconnell that he is prepared to invent any lie that will serve to slander him. Too many Irish writers have accepted him.

Clarke, Rev. J. S .- The Life of James II. Collected out of Memoirs writ of his own hand. 2 vols.

London 1816. (Vol. II).

Mémoires de Maréchal de Berwick. Paris 1778. English ed., London 1779. (Vol. I.)

These are good general accounts of the siege by writers who were not present, but who would have had access to all information available, and first-hand accounts from those who were present.

Archives de la Ministère de la Guerre: Archives Anciennes: Vols. 89: D'Alton, John—King James's Irish Army List, 1689. Dublin 1855. Boulger, D. C.—The Battle of the Boyne. London 1911. Vols. 895, 1080, 1083,

Boulder, D. C.—The State of the Boghe. London 1911.

Langrishe, R.—The Sieges of Athlone in 1690 and 1691, In Journal R.S.A.I. vol. xxi (1891), pp. 280, 370.

Kelly, Rt. Rev. J. J.—Colonel Richard Grace, Governor of Athlone. Reprinted from Irish Ecclesiastical

l. Dublin 1909—13. (Part IV—Second Siege of Athlone).

These four are modern works, but disclose a standard of objectivity and scholarship that justifies their selection. Dean Kelly, however, relied too implicitly upon O'Kelly.

NA HÁIT-AINMNEACHA, UGGOOL, UGGOON. T. S. Ó Máille, Ph.D., do scríobh.

Nodanna:

BSD	The Book of Survey and Distribution.
Gram.	Thurneysen, Grammar of Old Irish.
INP	Joyce, Irish Names of Places.
NB	O'Donovan, Ordnance Survey Name Books.
os	Léarscáilte na Seilbhéarachta Ordonáis.
OSL	O'Donovan, Ordnance Survey Letters.

1

TÁ an dá áit-ainm úd ar eolas agam sna háiteacha seo thíos. Tugaim le chuile ainm leagan urlabhruíochta dhen fhocal, mar chuala mé san áit é.

Condae Mhuigheo;

- Uggool, baile fearainn (OS 27, 36). Le cois an anma úd, tá ainmneacha fá leith ar an dá chuid atá déanta dhe na títhe san áit, Barruggool is Bunuggool, leaganacha nach bhfuil ar an léarscáil ordonáis. Ag Gaeilgeoirí chualas na trí hainmneacha [ogu:l, bɑ:r ogu:l', bun ogu:l'].
- 2. Uggool, giodán beag in Acaill (OS 42), is tugtar Uggoolmeen air chô maith. Ag Leath-Ghaeilgeoirí chualas an dá ainm [agu:l, agu:l m'i:n'].
- 3. Uggoolgarve, giodán beag gar dh'uimhir a 2 thuas (OS 42). Ag Leath-Ghaeilgeoirí chualas an t-ainm [agu:l goru:].
- 4. Uggool, baile fearainn (OS 73). Níor chualas an t-ainm ach ag Béarlóirí [εgu:l].
- Uggool, baile fearainn (OS 105, 115). Ag Gaeilgeoirí chualas an t-ainm [ogu:1].
- 6. Gubbanuggool, giodán beag in uimhir a 5 thuas (OS 115). Ní bhfuaireas fairnis ar bith ar an ainm san áit.

Condae na Gaillimhe;

- 7. Uggoolaveran, giodán beag ar an taobh ó thuaidh d'Oileán Iomaidh (OS 21). Ní bhfuaireas fairnis ar bith ar an ainm san áit.
- 8. Uggool, fo-roinn de bhaile fearainn Duachta (OS 26, 39); ach níl an t-ainm Uggool ar an léarscáil. Ag Gaeilgeoirí chualas an t-ainm [ogu:l], is leis an alt [ə togu:l].

- 9. Uggool, baile fearainn (OS 67). Ag Gaeilgeoirí chualas an t-ainm [ogu:1].
- 10. Uggool, baile fearainn (OS 81). Ag Gaeilgeoirí chualas an t-ainm [ogu:t].
- 11. Oggull, baile fearainn (?), BSD Gaillimh 9, leh. 17, áit a scríofar Ogulla san index dó. Bu chóir don áit úd a bheith idir Tír na Cille is An Chorr, i nDúiche Sheoigheach, ach chinn orm aon tuairisc fháil ar an ainm ann.

Condae an Chláir;

- 12. Uggoon Upper, baile fearainn (OS 19, 27). Níor chualas an t-ainm ach ag Béarlóirí ann [u'gu:n].
- 13. Uggoon Lower, baile fearainn (OS 27). Níor chualas an t-ainm ach ag Béarlóirí [uˈguːn].

Π

A' freagairt do na hainmneacha atá sa gcaibidil thuas agam, tugaim annseo a bhfuair mé dhe shean-fhoirmeacha as láimh-scríbhinní is as bun eló.

- 1. Uggool, Ouggoole, Uggoole, NB (Muigheo, paráiste Chill Chomáin); taobh Ogúil, Béaloideas XIII 179. Féach, freisin, an t-Irisleabhar seo LXXII 75, LXXXI 97.
- Uggool, Uggoole, NB (Muigheo, paráiste Aela), leabhar a dtugtar Ug Úmhaill, Uggúl 'low-hollow', mar mhíniú ar an ainm ann.
- 3. Uggoolgarriv, Uggoolegarve, NB (Muigheo, paráiste Acla), leabhar a bhfuil Ugumhail Garbh 'rough low hollow', mar mhíniú ar an ainm ann.
- 4. Egool, Uggool, NB (Muigheo, paráiste Chill Mo-Bhí), leabhar a thugas Ugúl 'hollow', mar mhíniú.
- 5. Ogule, Uggool, Uggoole, NB (Muigheo, paráiste Chill Mhic Íomhair), leabhar a dtugtar Uggúl 'hollow', mar mhíniú ar an ainm ann.
- 9. Oggale, BSD (Gaillimh 9), leh. 75; Sean-bhean Ogumhalla (tiodal seéil), Pádraic Ó Domhnalláin, Ar lorg an Ríogh is Scéalta eile, leh. 85.
- 10. Ogulla, BSD (Gaillimh 9), leh. 112; Ogowla, M. J. Blake, Blake Family Records (Ser. II), leh. 291.
- 12, 13. Uggoune, BSD (Condae an Chláir), leh. 4; Uggoon (leh. 282), Uggowne (leh. 412e), OSL (Condae an Chláir), imleabhar II.

Tá tagairt ag an Seoigheach (INP iii 596) do chúig cinn d'áiteacha i gCondae na Gaillimhe is i gCondae Mhuigheo, a bhfuil an t-ainm *Uggool* orthu; isé míniú Uí Dhonnabháin a thugas sé orthu (féach 2, 3, 4, 5, sa gcaibidil seo).

III

Séard atá san ainm úd le ceart, an focal Sean-Ghaeilge accomhal (occomhat, occubhol), pearsa an bhriathair ad-comhlaí 'ceanglann'. I bhfurmhór na n-áiteacha atá luaite thuas agam, tá ceangal talún, nó nasc talún, le feiceál go soiléir. Tugaim tuilleadh fairnise orthu thíos annseo.

- Tá trí mhalairt sa mbaile fearainn úd, is is ogúl, nó ceangal talún, chuile cheann díobh; (a) an druim fada a shíneas idir dhá cheann Chorrshléibhe; (b) an log idir Corrshliabh is Mám Uí Cheallaigh; (c) an t-iomaire ar an taobh thoir dhe Loch na mBreac Caoch, atá a' síneadh idir Mám Uí Cheallaigh is an ceann theas den Chorrshliabh. Measaim gurb é an tríú ceann an t-ogúl ceart.
- 2. Tá an ceangal annsiúd sa mám beag, nó isleán (mar 'dhiallaid' an Bhéarla), idir Sliabh Mór is cnocán gan ainm tamall siar uaidh.
- 3. Idir an cnocán gan ainm, a luaitear i III 2, thuas, is Cruachán Chnochúir ar an taobh thiar dhe, atá an ceangal annsiúd.
- 4. Tá an ceangal sa gcás seo sa líne dhe chnocáin ísle, a' síneadh ó thuaidh is ó dheas, mar lúba slabhra, sa gcuid thoir dhen bhaile fearainn.

 The Ishkirs a tugtar orthu siúd san áit.
- 5. Ar an tórainn thoir dhen bhaile fearainn, ag bun Cnuic Ghlais, atá an ceangal san áit úd, idir cnoc ar an taobh thuaidh (soir as Meall Garbh) is cnoc ar an taobh ó dheas (soir as Cnoc na Failse').
- 7. Is cosúil an t-ainm úd le Ogúl an Bhioráin, rud a mheabhróchadh ceangal fíor-thana dho dhuine. Creidim go mbíodh a leitheid ann tráth, idir an rinn d'Oileán Iomaidh à bhfuil Uggoolaveran uirthi is oileán beag eile ar an taobh thuaidh dhe (Illaunnamona ar léarscáil 1898). Deirtear san áit go mbíonn an talamh ar dhá thaobh an chaoil dá shíor-chreinneadh ag an bhfaraige. Ar léarscáil 1838, tá spás 1050 slat idir an dá oileán; ar léarscáil 1898, tá an spás úd méaduithe go dtí 1200 slat. Samhluím leis go mbíodh bior talún de cheangal idir an dá oileán sa tsean-aimsir, is gur ídigh an fharaige ó shoin é.
- 8. Tá dhá mhalairt san áit úd; (a) an t-iomaire a shíneas idir Cnoc an Ogúil ó thuaidh is Cnoc an Druimne ó dheas; (b) líne dhe chnocáin ísle, dhe shamhail a luaitear i III 4, thuas, atá a' síneadh ó thuaidh is ó dheas, treasna na codach úd den bhaile fearainn; séard atá ionntu, meall ar thaobh Chnoc an Druimne, Síán, is Síán Mór.

- 9. San áit úd, tá ceangal an-tsoiléir idir Cnoc Suí Con (932 troithe) is Cnoc na Leice (955 troithe).
- 10. Is cnapach garbh an ceangal san áit úd, ach tá sé le feiceál, go mórmhór ón taobh thiar, idir Cnoc Chlaoidigh is cnocán sa leath thuaidh den bhaile fearainn a dtugtar Cnoc na Scailpe air.
- 12, 13. An ceangal in uimhir a 12, tá sé le feiceál idir an bhuac thiar (1064 troithe) is an bhuac thoir (1008 troithe) den tsliabh atá ar an taobh ó dheas den loch (*Loughea*); cf. III 1 (a) thuas. Hainmníodh 13 ó uimhir a 12.

IV

San athrú a->o-, taspánann an éagsúlacht litrithe, accomhal, occomhal, gur fada ar bun é, is ar an bpointe seo, féach Gram. § 81. Bu chóir, dhe bharr cô-shamhluithe, gur ac- a bheadh le fáil as ad-c-, mar atá sna focla $d\acute{o}c\acute{u}l$, sócúl; is dócha go ndearnadh conson fá ghuth den -c-, in aithris ar focla mar ocbál, tucbál (cf. Gram. § 849). Maidir leis an gcéad ghuthaí i bhfuaimniú uimhir a 4, [¿guːl], séard atá ann [o] thar éis a chur chun tosaigh sa mbéal, fuaim a bhfuil cuntas tugtha uirthi ag an Máilleach, in Urlabhraidheacht § 222, 2; féach, freisin, áit-ainmneacha a' tosaighe le Leg-, áit a bhfuil Logsa nGaeilge, ar fud an Tuaiscirt is chô fada ó dheas le Condae Roscomáin is Condae Mhuigheo. I leith an athruithe l > n san ainm Uggoon, tá a shamhail in Addergown (OS 9 Ciarraí) < Addergool, is i bhfocla mar airneán, airneál, lelap, leanbh; maidir le l, n, caol, féach Foclóir Uí Dhuinnín (leitreacha L is N), is INP i 49, iii 5.

Is léir ó I 1-3, 6, 8, II 1, thuas, gur fireann an focal Ogúl. I gcásanna 5 is 8, úsáidtear an t-alt leis an ainm, is deirtear Muintir an Ogúil (5), Muintir an Ogúil, Cnoc an Ogúil, Barr an Ogúil, Baile an Ogúil, chuig an Ogúl (8). Is malairteach an inscin a gcásanna 9 is 10; deirtear Muintir Ogúil, Muintir Ogúilach (9), Muintir Ogúil, Muintir na hOgúla (10), áit a bhfuil Ogúla, Ogúlach, in aithris ar fhocla mar súil, súla(ch), caoirfheoil, caoirfheola(ch), is cinn dá sórt atá le fáil i nGaeilge Chonamara.

Summary.

A study of the place-name Uggool in the various forms in which it occurs in Co. Mayo, Co. Galway, and Co. Clare shows that it represents old Irish accombal, in the sense of 'a junction, or connecting piece of land'.

THE TINSLEY PORTRAIT SKETCHES OF THE WILLIAM SMITH O'BRIEN TRIAL.

By J. D. Forbes.

THERE has recently come to light a set of pen-and-ink drawings, done on the scene, from life, of the chief figures of the State trial for high treason of William Smith O'Brien held at Clonnel, County Tipperary, in 1848.

These sketches were made by William Tinsley (1804-1885), an architect practicing in Clonmel, who had been impanelled as a juror, though not required to serve. Tinsley emigrated to Cincinnati, Ohio, in the American Middle West, in 1851 after the economic depression of the period ruined his clients. The drawings were found by the writer in the possession of Tinsley's granddaughter, Miss Jane E. Tinsley, in Crawfordsville, Indiana, seat of Wabash College. The discovery was made in the course of researches into the architectural career of William Tinsley in Ireland and the Central United States.

The Tinsley drawings have been compared with photographic reproductions of more official portrait studies, where available, and are here considered one by one.

Tinsley drew twenty-three pen-and-ink sketches at the trials of O'Brien and his three principal associates. These comprise portrait studies of 19 persons and an impressionistic panorama of the courtroom.

In July of 1848 a combination of hard times, political agitation for the repeal of the Act of Union of 1800, and the spread of the revolutionary movement on the continent led to an abortive uprising in rural Tipperary, headed by the leaders of the Irish Confederation. Competent direction was lacking and after a brief clash with the police the insurrection melted away.

The government took a very serious view of the episode as is evidenced by the impressive battery of judicial and legal talent brought down from Dublin to conduct the trials. The Special Commission empowered to sit on the cases was headed by the Chief Justice of Ireland, Francis Blackburne. Assisting him were the Chief Justice of the Common Pleas, John Doherty, and the Fourth Justice of the Court of Queen's Bench, Richard Moore.

The prosecution for the crown was conducted by the Attorney-General of Ireland, James Henry Monahan, supported by his colleague, the Solicitor-General, John Hatchell.

The defence produced two of the outstanding court-room lawyers in Ireland, James Whiteside and Isaac Butt.

¹ The information about William Tinsley comes from his manuscript memoirs also in the possession of Miss Jane E. Tinsley.



The Courtroom: General View.

PLATE IX]

[Facing p. 87



Above: Two studies of William Smith O'Brien (1803-1864), the principal defendant.

Below: (left) Thomas Francis Meagher (1823-1867), second in importance to O'Brien. (Right) Terence Bellew McManus (1823?-1860), number three among the defendants.

The trials attracted enormous attention at the time and the London Times gave almost full coverage to the proceedings with long sections of verbatim testimony and detailed comment by a special correspondent.

A complete, word for word report of the main trial and the appeals as taken down by Court Reporter John George Hodges was published in Dublin in 1849 under the somewhat prolix title, Report of the Trial of William Smith O'Brien for High Treason, at the Special Commission for the Co. Tipperary, held at Clonmel, September and October, 1848, with the Judgement of the Court of Queen's Bench, Ireland, and of the House of Lords, on the Writs of Error.² This remains the principal source of information on the events in question.

Tinsley sketched all of the major personalities present at the trials—and some of the lesser ones—with the surprising exception of the presiding judge, Mr. Justice Blackburne.

The drawings are as follows: -

1. The Courtroom, titled in Tinsley's own hand, "General Court-house view at trial."

This is a quickly drawn, nervous sketch of the proceedings seen from the left rear of the vaulted chamber. Prominent are the bench with the three justices in their places beneath a curtained canopy surmounted with the royal arms, and the prisoner's dock in the centre of the room surrounded by sharp iron palings, here shown with a single occupant. There are the tables for counsel and court officials, and the fenced-in jury box sloping up to the left of the Court. The rows of benches on the floor of the hall are shown filled with spectators and the balcony running almost all the way around the room is crowded to capacity.

2 and 2a. Portraits of William Smith O'Brien (1803-1864), Defendant.

Both drawings are in profile. The first shows him seated in the dock while the second is merely a detail of the face labelled by the artist, "a better face of S. O'Brien but unfinished."

Both views show a whimsical face revealing personal charm, good humour and perfect self-possession while under strain.

The most reliable "official" likeness of O'Brien is undoubtedly the daguerreotype made at the time of the trial by one Professor Glukman and lithographed for quantity production by H. O'Neill.³

We are fortunate in having such lithographs of daguerreotypes, all clearly done at the same time, for all four defendants, O'Brien, Meagher, McManus and O'Donohoe, and the defending lawyer, Isaac Butt.

Comparing the Tinsley drawing with the lithograph we find a marked resemblance which gives some reassurance as to Tinsley's competence as a

² Published by Alexander Thom,

³ Photostatic reproduction made available through the kindness of the Director (Mr. R. J. Hayes), National Library of Ireland,

draughtsman outside of the architectural sphere. Both pictures show the expression of quiet inner amusement, the abundance of tiny "crow's feet" wrinkles about the corners of the eyes, the deep lines framing the upper lip, and the firm chin. Both likewise indicate the more superficial features of a fine head of curly hair, slight side-burns, and high, stiff Peter Cratchitt collar and stock.

3. Portrait of Thomas Francis Meagher (1823-1867), Defendant.

Tinsley's drawing of Meagher shows slightly more of the face than the profile. It reveals a rather more worried and less poetic face than the attractive figure of O'Neill's lithograph.⁴ In both portraits the pointed nosc and sensitively curved nostrils are quite marked.

The Matthew Brady photograph⁵ of Meagher as a Union colonel in the American Civil War is too late for comparison. Not only was the subject a dozen years older but he had grown a thick moustache and imperial in the meantime.

4. Portrait of Terence Bellew McManus (1823?-1860), Defendant.

It is not fruitful to compare the Tinsley portrait with the Glukman-O'Neill likeness⁶ of McManus because the first is a profile, the second a three-quarter view. Only the more obvious details of coiffure, dress and side-burns are in agreement. Both pictures seem to the writer to show a weaker, less assured and less engaging personality than possessed by either O'Brien or Meagher.

5. Portrait of Patrick O'Donohoe (18??-1854), Defendant.

Tinsley shows O'Donohoe in the dock guarded by a policeman in high-collared uniform. O'Donohoe's is a brooding and melancholy face with deep-sunken eyes and heavy lines. Glukman's daguerreotype⁷ is a full-face as compared with Tinsley's slightly more than profile but the characteristics apply to both.

6. Portrait of John Doherty (1783-1850), Lord Chief Justice of the Common Pleas.

It is difficult to penetrate the legal disguise of wig and gown that obscures the faces of the officers of the court, both judges and counsel, in Tinsley's on-the-spot portrait sketches.

Enough of Mr. Justice Doherty's face emerges from the regalia for us to see that the gentleman does not wear a pleasant expression. The mouth is too small, the lips too thin, and the chin too pointed and pinched in. The engraving of Doherty published the preceding year in Dublin by James McGlashan⁸ reveals these same features. This is in tragic contrast to the

⁴ cf. Note 3, supra.

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

[Facing p. 88



Above: (left) Patrick O'Donohoe (18??-1854), least of the four codefendants. (Right) John Doherty (1783-1850), Lord Chief Justice of the Common pleas.

Below: (left) Richard Moore (1783-1857), one of the judges. (Right) James Henry Monahan (1804-1878), Attorney-General of Ireland. PLATE XI]



Above: (left) John Hatchell (1783-1870), Solicitor-General of Ireland. (Right) James Whiteside (1804-1876), chief counsel for the defence of William Smith O'Brien.

Below: (left) James Whiteside. (Right) Isaac Butt (1813-1879), defence attorney for the three co-defendants of O'Brien.

charming open countenance of the same John Doherty of 18 years before, drawn by John Hayter and engraved by F. C. Lewis,⁹ or the somewhat later oil portrait by Martin Cregan in the National Gallery, Dublin.¹⁰ Doubtless the change was wrought by the money troubles that we know overtook him, though one might suspect hidden sickness and he did, in fact, die within two years of the trials.¹¹

7. Portrait of Richard Moore (1783-1857), Fourth Justice of the Court of Queen's Bench.

Mr. Justice Moore was the junior presiding judge at the state trials. He has a good mouth and chin in the Tinsley portrait but no other contemporary likeness of him has yet come to light so there is no check on Tinsley's accuracy.

8. Portrait of James Henry Monahan (1804-1878), Attorney-General of Ireland.

A comparison of the Tinsley profile with the copy of the Augustus Burke oil portrait¹² in the possession of the Honourable Society of King's Inns, Dublin, is virtually impossible because of the different angles of view and the overwhelming character of the wigs and robes. In both views, however, he is a remarkably handsome and forceful figure with perhaps too long a nose.

9. Portrait of John Hatchell (1783-1870), Solicitor-General of Ireland.

Tinsley gives us a bland, moon-faced individual with an imperturbable manner, pudgy cheeks and a double chin. This conforms to the impression we get from the copy by Catterson Smith, Jr., ¹³ which hangs in the King's Inns of his father's portrait of Hatchell.

It was Hatchell who was characterized by J. Roderick O'Flanagan in *The Irish Bar* as a master of tact who "played with the witness as a patient angler with a heavy fish." ¹⁴

10 and 10a. Portraits of James Whiteside (1804-1876), Chief Counsel for W. S. O'Brien.

Tinsley's two drawings are a profile and a foreshortened view of the man leaning over reading a book. The former is the more successful portrait. It reveals the lumpy nose, sloping forehead, and confident suggestion of a smile to be found in the more orthodox portraits of this celebrated lawyer, both the engraving by C. Grey, R.H.A., published by James McGlashan¹⁵ in

⁹ Ibid.

¹⁰ Photographic reproduction made available through the kindness of the Director.

¹¹ Dictionary of National Biography, Vol. V, p. 1091.

¹² Permission to have photographs taken granted through the kindness of the Benchers of King's Inns. The good offices of Mr. T. C. Tobias of the Society are greatly appreciated by the writer.

¹³ Ibid.

¹⁴ J. Roderick O'Flanagan, The Irish Bar, 2nd ed. (London: Sampson, Low, Marston, Searle & Rivington, 1879), p. 393.

¹⁵ Cf. Note 3, supra.

1849, and the 1866 pen-and-ink sketch by J. B. Yeats in the National Gallery of Ireland. 16

From the official transcript of Whiteside's defence of O'Brien it is apparent that he had remarkable gifts as an orator. His biographer in the Dictionary of National Biography, C. L. Falkiner speaks of his talent for 'impetuously burying facts and law under a golden avalanche of discursive eloquence.''

11. Portrait of Isaac Butt (1813-1879), Defence Counsel.

The Tinsley drawing of Butt does not compare at all favourably with the Glukman daguerreotype as lithographed by O'Neill. 18 The face is a plump one without much bony structure appearing to guide the artist and this may account for the weakness of the drawing. The full, curving lips are there but with them the likeness very nearly stops. J. B. Yeats's drawing in the National Gallery, Dublin, 19 is handsome but too late for comparison.

12. Portrait of Richard Pennefather (1773-1859), Baron of the Court of Exchequer, Advisor to the Court.

Tinsley's portrait study of his old friend and client²⁰ Baron Pennefather is by far the finest drawing of the series. It is a sharp, clear treatment of a formidable individual. There is nothing flattering here. The baron's small, pig-like eyes with sagging pouches under them, his enormous Roman nose, thin lips, and drooping double-chin are set forth boldly and accentuated rather than minimized by the wig and robes of office.

The painting of Pennefather owned by the Benchers of King's Inns²¹ was obviously done at a later date but even though the subject is appreciably older the resemblance is strong.

13. Portrait of Richard Pennefather, Jr. (1808-1849), High Sheriff of County Tipperary.

This haggard young man with the thin hand raised to his chin in an indecisive gesture looks neither successful nor well. Only the Pennefather beak reminds us of his father. There is none of the elder man's strength and self-assurance. It is a pity that we do not have a portrait with which to compare Tinsley's drawing.

14. Portrait of James Stevenson Dobbyn, "the Informer."

This key witness for the crown was described by the *Times*²² correspondent as "an ill-favoured fellow." Chief defence counsel Whiteside said to him significantly during the cross-examination, "When this is over you will

¹⁶ Cf. Note 10, supra.

¹⁷ Vol. XXI, p. 123.

¹⁸ Cf. Note 3, supra.

¹⁹ Cf. Note 10, supra.

 ²⁰ Cf. Note 1, supra.
 21 Cf. Note 12, supra.

²² Tuesday, October 3, 1848.

PLATE XII]



Above: (left) Richard Penncfather (1773-1859), Baron of the Court of Exchequer, he sat as adviser to the Commission in the O'Brien trials. (Right) Richard Pennefather, Jr., High Sheriff of Co. Tipperary.

Below: (left) James Stevenson Dobbyn, the informer. Key witness for the prosecution. (Right) Sub-Inspector Thomas Trant, leader of the detachment of Constabulary attacked by O'Brien in the "Battle of the Widow McCormack's Cabbage Garden."

PLATE XIII]



Above: (left) John Gore Jones, Resident Magistrate of Thurles. (Right)
Sub-Inspector Joseph Cox, officer of the Constabulary.

Below: Two studies of Henry Pedder, Clerk of the Crown at the trial.

make a little excursion somewhere? . . . You think not. I think you will. . . . ''23

15. Portrait of Sub-Inspector Thomas Trant.

The strongest witness for the prosecution was the police officer who had borne the chief brunt of the armed uprising. Trant testified24 that he had been dispatched to arrest O'Brien and was in the act of carrying out his orders at the head of a group of 46 men when he was attacked by the insurgents. The episode took place at Boulah Commons near Ballingary in Co. Tipperary. Trant's forces were forced to take refuge in the Widow M'Cormack's house where they were besieged in the "Battle of the Cabbage The arrival of reinforcements saved Trant and his men and forced the rebels to flee in confusion.

Trant appears in court in full uniform with epaulets, braid, and chinstrap in position. His face is almost simian in aspect and is marked by a long upper lip.

16. Portrait of John Gore Jones, Resident Magistrate in Thurles.

It was into Jones's custody that O'Brien was given²⁵ after his arrest in the railroad station at Thurles after he had grown tired of the role of fugitive and decided to return to Dublin.26

O'Brien requested Jones, as a personal courtesy, to forward a letter for him to Mrs. Michael Doheny in Cashel, asking her to send to O'Brien a certain portmanteau which he had entrusted to her for safe-keeping.²⁷ The portmanteau was subsequently stated to contain documents connecting prominent members of the Catholic elergy with the O'Brien uprising, a contention gravely questioned by the London Times in an editorial on October 12, 1848.

Portrait of Sub-Inspector Joseph Cox.

Like Trant, Cox appears resplendant in full regimentals. police officer stationed at Cashel. His role in the trial was minor. testified28 that under instructions from Resident Magistrate Jones, he had carried O'Brien's letter to Mrs. Doheny and secured from her the O'Brien portmanteau which he sent unopened to Jones in Thurles.

18 and 18a. Portrait of Henry Pedder, Clerk of the Crown.

The only interesting thing about the Pedder portraits is that one of them provides a view of the raised press-box at the trials prominently marked with the placard REPORTERS.

²³ Report of the Trial, &c., p. 287.

²⁴ *Ibid.*, pp. 412 *ff*. 25 *Ibid.*, p. 210.

 ²⁶ DNB, Vol. XIV, p. 780.
 27 Report of the Trial, &c., pp. 206 ff.

²⁸ Ibid., pp. 210 ff.

19. Portrait of John George Hodges, Court Reporter.

The drawing of the "Government shorthand writer" whose verbatim account of the O'Brien trial was published the following year, is badly foxed. But through the discoloration we see almost a caricature of the bright young man who is good at his job and knows it.

20. Portrait of Sir Lucius O'Brien, Bart. (1800-1872), Brother of W. S.

O'Brien.

The Tinsley profile of 1848 strongly suggests the full front oil painting by Catterson Smith²⁹ which must have been done at about the same time. There is slight family resemblance between Lucius and William, even allow-

ing for the former's baldness and the latter's abundant wavy hair.

Sir Lucius O'Brien had succeeded his father as fifth baronet in 1837. In 1855 he became thirteenth Baron Inchiquin upon the death of his kinsman, Admiral James O'Brien, third Marquess of Thomond. His right to the barony was confirmed on April 11, 1862 and in due course all of his surviving brothers and sisters were granted the rights and privileges of younger sons and daughters of a baron—all but William Smith O'Brien, the black sheep of the family, who, nevertheless, came into his share of the substantial financial inheritance.³⁰

²⁹ Ct. Note 3, supra.

³⁰ DNB, Vol. XIV, p. 781.



(Right) Sir Lucius O'Brien, Bart. Elder brother of William Smith O'Brien, (Left) John George Hodges, the "Government shorthand writer." and later 13th Baron Inchiquin.







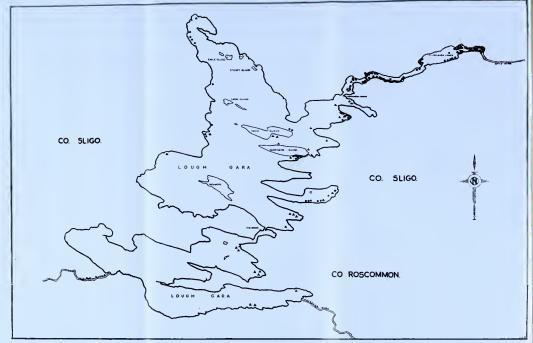
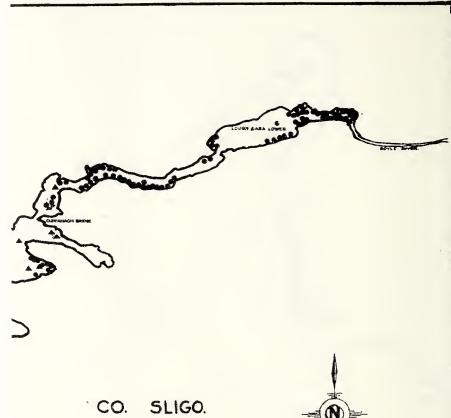


Fig. 1. Lough Gara, showing Distribution of vicinings.



3 CO. SLI



CO ROSCOMMON.



LOUGH GARA: A PRELIMINARY SURVEY.

By R. E. Cross, Member.

Lough Gara is situated in the counties of Roscommon and Sligo, to the south of the Curlew Mountains, a short distance to the south west of the town of Boyle and between it and the town of Ballaghaderreen. It is of irregular shape (with numerous long narrow bays or inlets) almost four miles in length along its main NE/SW axis and of varying width, with a superficial area of approximately seven square miles and a shore length of up to forty miles. It receives the surplus water of about 200 square miles of country or 128,000 acres. The principal supplies are led into it by the Lung River, which enters at the south western angle and carries down water through the large Keelbanada bog areas and the Feigh turloughs from Cloonagh Lough, Urlaur Lough and Erritt Lough on the present Roscommon-Mayo border, and the Breedoge River which enters at the south eastern angle into which drain the Mantua flats and the Mantua turloughs towards Moylurg and the large areas south of Frenchpark.

The main upper lake is divided into two sections by a narrow neck of land with a water cutting over a shoal ridge at Clooncunny now spanned by Cuil Bridge. This main lake is comparatively shallow around the edges with large sections of rush covered foreshores. It contains a number of comparatively large islands which are husbanded by farmers on the mainland. The shores of the lake are mainly high bog or shingle strand with large sections of marl subsoil. Geological examinations of the locality indicate large areas of post pliocene drift deposits and of bog with smaller areas of alluvium. Local rock outcrops are of lower sandstone, carboniferous limestone and diorites.

The outflow from this main lake is through Cuppanagh Shoal at its N.E. corner whence a wide sluggish channel leads for about 3 miles through Lower Lough Gara to the rock outfall at Tinacarra. This section is situated in a valley base about \(\frac{1}{4} \) mile wide with the channel width varying from a general 100 yds. to 300 yds. wide on the mile stretch designated Lower Lough Gara. In fact this section was more correctly a wide channel with a deep centre cut and shallow sides, which latter are now dried out in low water periods. The outfall at Tinacarra is over a rock shoal approximately half a mile in length whence a rapid fall carries what is now termed the Boyle River in a narrow valley past the town of Boyle to discharge through Lough Key into the Shannon.

There are numerous earth-works in the country surrounding Lough Gara and on the larger islands in the lake. Other items of interest are a large 'cromlech' with closed portal and a broken pillar stone near Tinacarra, and ruined remains of megaliths at Drumcoo and Kingsland.

The waters of the Boyle River and of Lough Gara yield very good fishing. Brown trout run to a good average size and fishing for pike and perch is also good. Some salmon are caught in the early months of the year.

In the middle of the last century a scheme of works of deepening and widening was carried out on the river channels leading to, through and from Lough Gara. The aim was to prevent flooding and water logging of the lands around the lake shores and along the Lung and Breedoge Rivers and tributaries. These works caused a certain lowering of the general level of Lough Gara with consequent improvement in flood flow conditions. The full benefits anticipated were not realized and following continuing local representations a further deepening of the outfall channel from Lower Lough Gara downstream, with corresponding deepening of the connecting links at Cuppanagh and Cuil, was put in hands last season. These works were carried out by the Office of Public Works. A major lowering of the general lake levels has ensued, and a large area of foreshore has been exposed around the perimeter of the lake. This fresh foreshore extends out for a considerable distance from the old "permanent" lake water boundaries and several of the rushy inlets have been completely uncovered.

The general appearance of a number of the smaller "islands" even before the lake was lowered suggested that they were possible crannog sites. The local personnel in charge of operations were alerted and the Museum authorities advised as to possibilities. The first "find" to come to light was a "dug-out" canoe which was discovered embedded in the silt of the new foreshore near Cuppanagh Bridge early in April, 1952. In May the first crannog site was identified at Falleens and from that on during the summer and autumn practically each day brought fresh discoveries of crannog sites with stone and bronze articles on or near them.

Before the start of the winter season, when the seasonal rise in lake level started, a total of one hundred and forty-four "crannog" sites had been discovered. These were of two main types, one of much smaller size than the other. The first type, mainly in Lower Lough Gara, averaged only twenty feet in diameter, is very flat and consists mainly of a circle of stones of varying size mixed with occasional horizontal timbers and pieces of brushwood, although the horizontal timbers and brushwood are not superficially evident in all cases. The whole mass is kept in position by circles of wooden piles up to six inch diameter and made of timber trinmed from its natural state. This type comprised the major portion (110) of the sites which have so far come to light and which were mainly situated in the shallow reed-covered side flats of Lower Lough Gara and the north-castern corner of the main lake. In a number of cases staggered flagstone causeways formed safe passageway across the soft silt or marl foreshore.

In every instance except one the smaller type sites have produced pre-Bronze Age material. The "Bann Flakes" found in the vicinity were often located as small heaps of varying sizes of flake. There were traces of animal PLATE XV] [Facing p. 94



Lough Gara: (above) Typical `Small` type of Crannog. (below) Large 'type of Crannog.



bones and charred timber but no apparent surface remains of a dwelling or habitation.

The second and larger type, situated chiefly in both sections of the main lake, consisted of a large high pile of stones of varying size with horizontal log timbers and brushwood resting on a small natural rise in the alluvial or marl of the lake bed. This whole formation was kept in position as before by one or more circles of wooden piles of hardwood 6 inches to 8 inches diameter. In a number of cases here also staggered stone causeways now exposed lead to the crannogs from the nearby shore. The average size of this type of crannog is about 100 feet in diameter and over twenty of these, what might be termed island crannogs, have been located to date. The material yielded by superficial examination so far has been mainly objects of the late Bronze Age. No surface traces of a dwelling remained.

The material that has been recovered to date from the surface of these crannog sites and the freshly based foreshore nearby falls into two main groups as indicated. From the early group over four hundred well-formed Bann Flakes mainly made of local stone have been handed in with some cores from which these Bann Flakes were struck, polished stone axes of local stone, hammer stones, flint arrow heads, saddle querns, net sinkers, stone chisels and whetstones. In addition many of these sites had bones of domestic animals around them. There we had a community which must have been agricultural as shown by corn grinding querns and pastural as the animal bones would indicate. It is probable that fishing was also one of their pursuits.

In those crannog sites associated with the Bronze Age the finds consisted of a bronze sword, a tanged bronze chisel, a socketed bronze knife, a tanged bronze knife, some fourteen hollow east perforated bronze rings, bone needles, portion of the end of a trumpet, the end of a bronze flesh hook and three bronze sunflower pins, one of these being the largest so far recorded in these islands. In addition one of these crannogs produced a large number of pieces of plain undecorated domestic pottery of the "flat rinumed" type. (cf. O'Neill Hencken report on Ballinderry Crannog No. 2).

One of the crannogs (near Bawn Island) produced a rotary quern and a socketed iron knife.

In addition to the items found on the surface of the two classes of sites as indicated, a large number of objects were discovered at various spots around the lake shore not immediately connected with any cramogs or similar structures or sites. These included a fine Zoomorphic brooch with millefiori studs set in red enamel in the terminals, two decorated bronze ring pins, three iron woodsman's axes, one with portion of its wooden handle intact; an iron battle axe of Viking type, an iron plough coulter, an iron soc of a wooden plough and a two-handled wooden vessel one foot high and 8 inches diameter. Portion of a bronze coated iron bell of the normal rectangular section of the early Christian period was also found in the district.

As well as these sporadic finds, a total of seventeen dug out wooden canoes were discovered at different spots around the lake lying half buried in the soft mud of the foreshore. These were all made in the traditional manner by hollowing out the halved trunks of large trees. The workmanship was good and the sides and bottoms were of uniform thickness. The material used was local native hardwood and the canoes conformed to a general pattern, although there were differences in details. Some of them had additional interesting features such as heightened gunwales and stern boards, while a few had cross ribs dowelled into position to strengthen the sides.

In three cases extra items were attached by iron nails of the flat headed variety, suggesting again, a date in the early Christian period. The boats varied in length from 9 feet to 35 feet, averaging about $2\frac{1}{2}$ feet in width and $1\frac{1}{2}$ feet deep. One good specimen had a centre width of 3 feet from which it narrowed gradually to a gracefully pointed bow and a stern width of almost two feet. Some of the boats were damaged by over enthusiastic local investigators.

In this article the aim has been to give a general description of Lough Gara and the area in which it is situated and to give a factual statement of the different items exposed by the lowering of the lake. It is quite probable that further centres of interest will be located and perhaps more interesting "finds" come forward.

ST. BRIGID AND GLASTONBURY.

By Ven. Archdeacon John L. Robinson, M.A., Fellow.

Glastonbury, the cradle of Christianity in the West of England, was on the pilgrim route from Southern Ireland to the Continent of Europe. Crossing from Wexford or Waterford to Bridgewater Bay in the Bristol Channel, the pilgrims would travel by Glastonbury, Salisbury, Winchester and Canterbury. The earliest band of pilgrims of whom we hear were murdered in their sleep in a village near Glastonbury in the 7th century. It is said that their brassheaded staves flashing in the sun were mistaken for gold. Their remains were exhumed and reburied at Glastonbury about the year 700 by Ine, king of Wessex. The Glastonbury records give the name of their leader as Indract, but there is apparently here some confusion between two similar stories. Indract and his companions were murdered near Glastonbury when returning from Rome, but not until 854 A.D.¹ In the 13th century Archbishop Henry de Loundres of Dublin and other Anglo-Norman bishops in Ireland granted indulgences to Irish pilgrims to Glastonbury.²

It may be on account of these pilgrims that the Glastonbury legends claimed a connection with the leading saints of Ireland. St. Patrick and his successor in the See of Armagh, St. Benignus, were both said to have retired to Glastonbury after their labours in Ireland, and to have died and been buried there. The 14th century seal of Glastonbury Abbey depicts St. Patrick, St. Benignus and the local saint, St. Dunstan, as the patron saints of the Abbey. St. Brigid and St. Columba are both said to have visited Glastonbury.

Glastonbury legends are notorious. Dr. Plummer refers to 'that huge system of monastic lying, in which Glastonbury had a bad pre-eminence.' These legends of Irish saints must be treated with great reserve; but there is one which merits our attention and that is the story of the visit of St. Brigid of Kildare. It is thus given by William of Malmesbury, who collected material for a history of Glastonbury in 1143:— 'Brigid, who came to Glastonbury in the year 488, returned home again after some little stay in an island called Beckery, having left behind her certain important relics, namely, her hood, beads, hand-bell and weaving tools, which are preserved there in her memory.³ John of Glastonbury, who wrote in 1400, repeats this story, and tells us that the authority for the date of St. Brigid's visit was Gildas. Now Gildas was a contemporary of St. Brigid. He was a North Briton who was educated in Ireland and after his return to England is said to have corresponded with St. Brigid.⁴ Unfortunately his reference to her visit cannot

4 Kenney, op. cit., p. 177.

Kenney. Sources for Early Irish History. p. 446.
 Mant. History of the Church of Ireland. pp. 91, 92.

³ Hist. de rebus Glastoniensibus (ed. T. Hearne, 1727) pp. 23, 24.

now be traced; but as he died at Glastonbury there may have been writings of his in the archives of the Abbey which are no longer extant.

The statement that St. Brigid stayed on the island of Beckery is interesting. In early days the valley in which Glastonbury stands was a mere or shallow lake with islands rising out of it. Glastonbury itself, with its surprising 500 foot hill, was the island of Avalon of the romance of King Arthur and his knights. Its earlier Romano-Celtic name, Inisvitrin, testifies that it was an island. Half a mile from it there was a small flat-topped island, measuring about 150 yards by 50 and rising perhaps 20 feet above the water. This was Beckery, and all the earliest Glastonbury documents explain that the name means 'little Ireland.' Obviously the name represents the early Irish becc Eriu.⁵ On this island there was said to have been a very early church dedicated to St. Mary Magdalen. It was replaced in the 10th century by a larger church, erected by St. Dunstan and dedicated to St. Brigid. The site of these churches was excavated in 1887. St. Dunstan's church was found to have consisted only of a nave, 22 by 48 feet. Within it were the foundations of a little oratory of the nave-and-chancel type, corresponding closely in its measurements to the oratory of St. Kieran at Glendalough. The only objects of interest found were some armorial tiles of the 14th century. The foundations were covered over after they had been examined and can no longer be seen.

It must be admitted that St. Brigid's visit to Glastonbury gains no support from early Irish sources. No mention of it is found in any of the extant lives of the saints; but it must be remembered that their purpose was not to write They were only concerned with miracles and other proofs of holiness. Our annals also are silent on the subject. The first Irish writers to mention the story are the early 17th century writers, Archbishop Ussher and Colgan. 6 Ussher accepts the story, but Colgan suggests that it must have been some other Brigid and not the Abbess of Kildare. In this he is followed by Canon O'Hanlon in his Lives of the Saints. It should, however, be pointed out that their objections to the story is that they believe that Glastonbury claims that St. Brigid is buried there; Colgan says indignantly 'Her body, whether alive or dead, never saw Glastonbury.' This, as we have seen, is not the Glastonbury story; it distinctly states that St. Brigid returned to Ireland.

There is no question that the Glastonbury tradition was that their visitor was St. Brigid of Kildare, for two memorials of her still exist and each shows her in the act of milking a cow. This is in the true Irish tradition of St.

6 Ussher. Brit. Eccl....Antiq. cap XVII, pp. 466, 467. Colgan. Triadis Thaumaturgae.

Thaumaturgae. app. IV, cap. VI, P. 618.

⁵ 'Beckeria, quae parva Hibernia dicitur' (Charter of Henry II). Archbishop Ussher says that in his day it was called 'Brides-hay,' i.e. St. Brigid's Island. It is still called 'Brides' locally. A very old oak tree grew on the island, the stump of which has recently been removed.

Brigid, still maintained in some parts of our country when, on her festival, the St. Brigid's Cross of straw is nailed above the door of the cow-house. The first of these memorials is on the late 12th century doorway of the church of the Blessed Virgin which stands on the site of the original church of Glastonbury, just west of the Abbey. The other is on the tower, all that now remains of the 14th century church of St. Michael on the top of the Tor, the steep hill that rises above Glastonbury.

It has been shown that St. Brigid is said to have left at Glastonbury her bell and other objects. This bell is connected with another story of St. Brigid which is not found in our early Irish sources. In the life of St. Gildas it is told that, after he left Ireland, St. Brigid sent a messenger to him with a letter asking that he would send her something by which to remember him. Being a famous maker of bells, he made one and sent it to her by the hands of her messenger. The Welsh Annals give the date of this incident as 484, four years before St. Brigid's visit to Glastonbury. Ussher accepts these two dates as historical, 484 for the making of the bell and 488 for the visit to Glastonbury, and gives them a place in his Chronological Index, the last work which he completed.

Medieval writers tell us that St. Brigid's bell was preserved at Glaston-bury in the Abbey's great collection of relics. Presumably at the dissolution of the Abbey in 1539 it passed into private hands; and nothing more is heard of it until forty years ago, when a bell, presumed to be the same bell, came to light. An old man, who lived on the Mendip Hills north of Glastonbury, died; and among his possessions was found an old casket made of oak. In it, wrapped in some old linen, was a hand-bell. It passed into the possession of the late Miss Alice Buckton of Glastonbury, who showed it to experts in the National Museum of Ireland and in the British Museum, and also to the late Dr. R. A. S. Macalister, a Past President of this society. They all pronounced it to be undoubtedly an old Irish hand-bell. I regret to say that at the time of Miss Buckton's death, three years ago, the bell mysteriously disappeared. Every effort to trace it was made by her executors and by the Rev. Lionel S. Lewis, Vicar of Glastonbury, who offered a large reward for its return, but without success.

It is hoped that in calling the attention of the Society to the existence of an early Irish place-name and an old Irish hand-bell at Glastonbury, sufficient justification will be found for the writing of this paper, whether the story of St. Brigid's visit to Glastonbury is accepted as historical or not; but the impression left on the mind of the writer is that in spite of the silence of early Irish sources this Glastonbury legend tells of a genuine historical episode in the life of the saint.

MISCELLANEA

Block-wheel Car from Slievenamon, Co. Tipperary.

The accompanying photograph (Pl. XVI) is of more than ordinary interest since it shows the last of the block-wheel cars of the Slievenamon district of Co. Tipperary. It will be seen that it is very like the car from Goatenbridge in the same county described in a previous issue.

The shafts are connected by having three riders bolted across them, two in front and one at the back. The floor consists of three cross-pieces mortised into the shafts. The back rail is supported on round wooden pins set in the back rider, supplemented by a long iron bolt at each end. A point of difference between this and the Goatenbridge car is that instead of two side rails on each side in the latter there is here only one. This is bolted to the back rail and slopes forward as far as the front rider. The stumps of the wooden pins, similar to those supporting the back rail, which once connected the side rail with the shaft are visible in the photograph, most clearly on the far side. The near side rail is imperfect and the far shaft has been repaired with a splice. It will be noticed that the wheels are retained on the axle by a wooden pin instead of the iron one used in the Goatenbridge car.

The absence of a solid floor in these cars may be, at first sight, mystifying, but it should be remembered that when used for the conveyance of such things as turf, potatoes or manure they were formerly equipped with a large oval basket, the *eis*, anglicised kish or kesh.

The car is the property of Mrs. John Harvey, Ballyknockane, Kilsheelan. The maker is dead but the smith who shod the wheels, Mr. Charles Gibbs of Killurney, is still living. The axle was made from the trunk of a wild cherry cut at Ballyvaughan, south-east of Slievenamon. This appears to have been the timber traditionally used for such axles in the district.

For the photograph and much of the information 1 am indebted to my friend, Mr. Patrick Lyons of Clonnel, who, in recognition of his services to Irish archaeology extending well back into the last century, has recently been made an Honorary Fellow of the Society and who still, at the age of 92, generously continues to place his vast store of topographical and traditional knowledge at the disposal of many workers in the field of Irish antiquities.

A. T. Lucas, Hon. Gen. Secretary.

What was a "Cloghinkelly"?

Dr. John Rider, Protestant Bishop of Killaloe, in his Royal Visitation of the diocese in 1615, and in his Loyal Answer of 1622 (both at large in Dwyer's The Diocese of Killaloe from the Reformation to the Eighteenth Century) refers to some of the diocesan parishes as containing, besides Church, Glebe, etc., a "Cloghinkelly". For example, we read, under a list

¹ J.R.S.A.I., 82 (1952), pp. 135-144,



[Photo: M. A. Keating. Block-wheel Car from Slievenamon.



Bronze Age Hoard from Garden Hill.

of benefices dated May 1, 1622, "Chauntorship. The Chauntorship to which belongs the vicarage of Lattrah and ye Clohinkellies of Kilmore, Kilteely, Clonibrah, and Kiltinanleith". There are also references to "The Cloghinkelly of Yohall arra" and "the Clohinkellies of ffinah, (and) Killinasullah". All the places mentioned are diocesan parishes except Kilteely, which is in Limerick diocese (on the border), and Clonibrah which I cannot identify.

The context implies that, whatever the Cloghinkelly may have been, it dated from pre-Reformation times. It appears, at first sight, to be a phonetic rendering of Clochan Cailleach or "Women's House". I have found nothing to explain the expression in other contemporary papers (Cal. Papal Letters, etc.). It may be of interest to some of our readers; and perhaps anyone who has come across a passage containing the word Cloghinkelly or a word resembling it would be kind enough to give a reference to the place where it is to be found.

DERMOT F. GLEESON, Clarecastle, Ennis.

Late Bronze Age Hoard from Garden Hill, Co. Fermanagh.

Recently the National Museum acquired a bronze socketed hammer and two bronze rings (one with a link attachment) said to be part of a hoard found in a cut-away bog at Garden Hill, about 1½ miles north of Belcoo, Co. Fermanagh (Pl. XVII). The donor, Major T. W. Dickie, Q.C., R.M., Ardeevin, Enniskillen, gives the following find particulars:—

"About 20 years ago I used to shoot in that vicinity with Major W. J. Nixon, who owns a large tract of mountain there, and talking to an old farmer (Gray) on the mountain I asked him if they had ever found anything when turf cutting. He said only oncee, when on the clay 'sill' about 7 feet down they found some bronze articles, including what he called a 'duck,' but that he was not sure what had happened to them. I asked him to try to get me anything found and I called again at his house when he produced the two rings and the hammer and said the other articles (he could not remember the details) had been carried away by different members of the turf party and could not be found. . . . He showed me a stone about 12 inches long, 6 inches wide and 3 inches high, curved on top, obviously artificial, which he said he had found on the 'sill' near the articles. . . . Could it possibly have any connection with the bronzes? As Gray has been dead for years and the other neighbours have all gone, I'm afraid I can get no further information."

As to the objects presented by Major Dickie, the bronze socketed hammer is a standard item of equipment in metalworkers' outfits of the Late Bronze-Early Iron Age and occurs in many such hoards in Ireland. (A list of these hoards is given below). Such hammers are known from England and from certain Continental sources—France, Switzerland (where moulds for their manufacture are reported from Bronze Age settlements at Geneva) and from Hungary and Poland. Compared with other bronze types these are rare in Ireland. Apart from those found in hoards (see below) there are only eight in the Naitonal Museum. One of these comes from Abbeyshrule, Co. Longford (W. 40); the remaining examples are not localised.

Among the Irish hammers we can recognise three main forms. The first

has a circular socket, cylindrical body (sometimes waisted) and domed head. In the second type the socket may be round or square, the body section oval or oblong, and the working end in the form of a wedge. The Garden Hill hammer belongs to this group. The third type has a short, circular socket and an expanded, T-shaped head. Rings are associated with hammers in two other hoards, Trillick, Co. Tyrone, and Ballinderry, Co. Westmeath.

The Garden Hill hammer (Pl. XVII, 1) is cast from good quality golden bronze but the finish is crude and no attempt has been made to smooth down the sharp ridges left at the seams of the mould. Around the circular socket there is a heavy collared lip with immediately below it a pronounced groove. The socket tapers from 2.0 cm. mouth diameter and is effective for a depth of 6.0 cm. From here the head is solid metal, oblong in section. The working end (2.5 by 1.0 cm.) shows definite signs of wear. The length is 9.0 cm.

The smaller of the two rings (Pl. XVII, 2) is a solid casting, diameter 3.25 (outer) and 2.0 cm. (inner) with broad oval section. The other (Pl. XVII, 3) 6.0 cm. and 4.0 cm. diameters, is hollow-cast around a clay core, traces of which may be seen where the metal has been damaged. The loop attachment which engages freely on the ring consists of a tubular "eye", 1.6 cm. wide and 1.5 cm. inside diameter, with perforated tang 1.5 cm. long; all cast in one piece. The triple ridges on the tubular loop were designed to strengthen the fitting while at the same time economising on the metal used. As to the purpose of this ring fitment: one automatically thinks of harness trappings—horsebit ring, a guide or terret for a reins, or the terminal loops to join a leather reins to the horsebit. On the other hand it could equally well be a ring handle for a small vessel of cauldron type. From the wear on the tang it appears more likely to have been affixed to a metal rather than to a wooden or leather object. The flattening of the central ridge where it meets the tang suggests that metal was pushed hard against it.

The report quoted above mentions a "duck" now missing. As far as Major Dickie can remember, his informant did not specify the material from which the "duck" was made. While the occurrence of bird-and-animal-like figures is common in Early Iron Age contexts, and while such objects would not be out of place in a hoard which dates to the Late Bronze/Iron Age Transition period, it may be that the object described by the finder as a "duck" was an anvil. Many of these at first glance could easily be mistaken for a bird. Rubbing stones and polishing stones form part of a metalworker's stock-in-trade, and the stone referred to in the last part of the letter quoted above may have been so used.

Thanks are due to Major Dickie for presenting this important find to the National Museum and for supplying the relevant information regarding it. It is hoped that this notice may evoke further information as to the present whereabouts of the missing pieces from the hoard.

Socketed Hammers in Irish Hoards.

- 1. Lusmagh, Co. Offaly, with anvil, chisels (tanged and truunion type), gouge and triangular rubbing stone. Now in British Museum.
- 2. Dowris, Co. Offaly, from the famous merchant's hoard which contained a "horse load" of bronzes (spearheads, socketed axeheads, trumpets, gouges, swords, razors, cauldrons and sandstone rubbers). Part of the hoard, including the hammer is in the British Museum; a few pieces still in private possession; the rest is in the National Museum.
- 3. Trillick, Co. Tyrone, with bronze rings.
- 4. Bo Island, Enniskillen, with broken sword and spearhead.
- Ballinderry, Co. Westmeath, with rings, chisel and socketed axehead.
- 6. Bishopsland, Co. Kildare. Three hammers with anvil and vice-like object, chisels, socketed axe and palstave, bronze wire and saws—all the paraphernalia of an artificer's workshop. In National Museum, Dublin.

P. J. HARTNETT (Member).

Who were the Gamanrad?

They were a section of the people known as Fir Domnann, the Irish form of the Latin, Dumnonii. These were colonists from the Continent who settled in Devon, in Leinster, in S.W. Scotland and in Erris in Mayo. Gamanrad were among these last. Lebor Gabala says "the Fir Domnann came and landed in Irrus in the west". When they came is uncertain-Chadwick says "it is now generally agreed that one series of invasions began c. 1,000 B.C., the second began c. 600 B.C. or a little earlier. A third series is believed to have begun in the latter part of the fourth century".2 tradition dates the founding of Emain Macha, and the destruction of Dindrig by Gauls, to much the same period, c. 300 B.C. The invasion of Erris was probably part of the same movement. The local legend of a great battle at Leacht Air Iorruis in the Mullet may derive from memories of invaders landing from the sea. The Fir Domnann are sometimes classed with the Fir Bolg. But they were certainly not a servile people. They were evidently dominant in their respective territories and this applies particularly to the Gamanrad. "There were three hero-races in Eire: the Gamanrad in Irrns Domnann, the Cland Dedad in Temair Luachra, Cland Rudraige in Emain Macha". All three races appear in the Táin Cycle as aristocrats and warriors. Their manners and customs are identical. There is no question that these reflect the stage of culture known as La Tène, the culture of Central Europe from 600 B.C. to 100 A.D. That this culture existed in

¹ Bk. of Leinster facs. p. 4A.

² Early Scotland, p. 70. Chadwick.

³Leabhar na hUidre (Bests edit.) p. 21B.

Connaught is proved by the famous Turoe Stone (Loughrea, Co. Galway). "One of the finest examples of La Téne decorative art in the world." Dr. Raftery dates it circa 300 B.C. Two other stones of the same nature have been found in Roscommon and Cavan.

Our chief source of information for the Gamanrad is found in a version of the saga, Táin Bo Flidaise.⁴ This is a Connaught work by someone who knew the topography of west Connaught intimately. It abounds in placenames. There was a copy made in 1238 in Scotland, and also a copy in B.W.1. R.I.A. It gives Gamanrad territory as "from the river Drowes to West Boirinn (Burren, Co. Clare) and from Leim Con Culaind (Loop Hd.) to Luimnech, and to Sliath na hEsairge, (unidentified) to the harbours of Daimh-innsi (Devenish) and from Benn Echlapra (Binaghlon, Co. Fermanagh) to Toir-innse north of Magh Cetne (district north bank of Drowes)."⁵

Along with this statement there is a detailed list of chiefs and forts said to have existed in the Táin age. The fort names are not imaginary. Many are in use to this day. Mr. T. Westropp has established this in his article in J.R.S.A.I. Vol. XLIV, pp. 148-160. Those forts identified are strung along the coast, mostly promontory forts. The furthest inland case was on the west side of Lough Con, Dun Atha Fen. The names of the chiefs have not the same authority. What is claimed is, that a poet put "a thread of instruction round the muster of chiefs and nobles, the princes and mighty men" and that the poet was their co-temporary. This may be true as rhymed histories or pedigrees were much used for memorising and could be passed on for generations. A few of the chiefs named are known clsewhere: Fer Diad m. Damain, the beloved friend of Cu Chullain; Fraoch m. Fidaigh, hero of Táin Bo Fraech and of Tocmarc Treblainne; Curnan Cos-duib hero of Dindsenchus of Druim Cliabh.

The total numbers given are: 16 chiefs or families from Assaroe to Killala, and 47 from that southward to Croagh Patrick. The Gamanrad had only a coastal strip and that none of the best. Yet there is no hint of poverty in their tradition. The legend of Flidais' marvellous milch cow suggests abundance. It is quite likely that when the Fir Domnann came to Connaught they brought stock with them such as calves. The name Gamanrad, =Calf-folk, points to them particularly as importers of good breeds whose milk-giving qualities amazed everyone. It is also possible they brought foals. In 1903 Dr. Coffey excavated a tumulus near Loughrea. Above a cremated burial were laid the skeletons of a woman and a horse. This latter was measured and compared with skeletons of other known breeds, ancient and modern. The Loughrea measurements are almost identical with those of the largest of the horses found at the La Téne site in Switzerland.⁶

⁵See Celtic Review, vol. 3, No. 10, p. 136.

⁴See Celtic Review, vol. 1. 1905.

⁶Proc. R.I. Academy vol. XXV, C No. 2.

Another feature attributed to the Gamanrad was fort-building. Keating's account of Connaught at this period is, that Eochaid Feidlech divided the province in three. He was also of Domnand race and was regarded as King. He asked for the site of a royal fortress and after some opposition, was given Cruachan. "The fort was then began by the Gamanrad and they made the rampart in one day." They were evidently supposed to be the best engineers of all the Fir Domnand. Did they build all the forts named in the list, or did they take over from previous owners? Excavation might show something one way or the other.

Among personal and place-names one name is conspicious, Fidach, Fidheach, Idath. As personal: there was Fidheac mac Feig to whom Eochaid gave the land from Fidheac to Luimnech, there are in the lists: Fidach of Dun Leitriach (at Carrowmore Lake), Fraoch mac Fidaigh at Port Eoruis, Caei, Eo, Flann sons of Fidach. In place-names there was the Fidheac mentioned above (unidentified) also a Sidh Fidhaigh, a Loch Fidhaigh (unidentified). The name seems to survive in Sliabh Fyagh east of Carrowmore Lake.

Centuries after the Táin Age the name crops up in the Finn cycle. There was an early tale, now lost, about Aed mac Fidaigh a prince of Connaught "who loved the maiden of Bri Eile and was killed by Finn," or, as another version said, "was betrothed to Niamh daughter of the King of Uladh... Oscar killed them at Lough Croan near Athlone..." Lastly "two sons of Aedh m. Fidaigh King of Connaught" were killed in Ulster.

Later traditions were collected by Mac Firbis and embodied in a text published by O Raithbheartaigh in "Genealogical Tracts, A." According to these: "Aonghus Fionn son of Donnall son of Fiach son of Fiodhach took the kingship. By him the Gamanrad were first undone... Cormac mac Airt took the kingship of Connaught and severed it from the Gamanrad. Aodh (ua Fidhaigh), it was on him especially Cormac practised injustice putting a viceroy over him." After Cormac's time the Gamanrad disappear from traditions and from literature. Having lost their leading position they merged into the common population and were simply men of Connaught when Amalgaid m. Fiachraig came to Mayo and gave his name, Tirawley, to what had been the "goodly land of the Gamanrad."

M. E. Dobbs.

⁷Tocmarc Treblainne. Bk. of Fermoy.

⁸ Z C P. VIII. p. 118.

⁹Silva Gad. 2. p. 127 and p. 181.

NOTICES OF BOOKS

Belfast in its Regional Setting: A Scientific Survey. The British Association for the Advancement of Science, 1952.

It is the excellent custom of the British Association to have prepared for each of its annual gatherings a handbook dealing with the locale of the meeting. The authors of these books are usually residents of the place, each an authority in his particular subject, working as a team under an editorial committee. The books remain valuable because they preserve, in compact form, authoritative accounts of the geography, climate, geology, fauna and flora, etc., of the locality, supplemented by articles on the historicand prehistoric—economic and agricultural and other aspects of the subject. Needless to say, these articles embody the latest results of scientific research in every field.

The handbooks for the Dublin meetings of the Association in 1878 and 1908 are mines of information and are actually of handbook format. The subject of this review is more ambitious in this respect; it is a good-sized book and while it contains fewer schedules, statistical tables and the like, than the earlier publications just mentioned, it has more and better illustrations and maps. Its four main sections cover the physical and human backgrounds, the state of the region to-day and a survey of the city of Belfast. Each chapter is a sub-section. The first is by Professor E. E. Evans. It is geographical, and is illustrated by an attractive and informative block diagram of the Belfast region. There follows the chapter on geology by Professor Charlesworth and others, also by able writers on climate and soils, botany and zoology. Professor Evans and Mr. Jope are the joint authors of the prehistoric and proto-historic chapters which give, in concise form, the results of the latest research. The same must be said of Mr. Jope's chapters on historic monuments which cover the whole field from medieval times to the architecture of the early nineteenth century. The historical sub-sections—the medieval by Professor Sayles; the Plantation and later by Mr. Beckett-are short. The remaining half of the book is devoted to economic history, anthropology, agriculture, use of land, place names and dialects, concluding with a study of the city itself. All are well treated by competent authorities.

This attractive book is very well produced and worthy of a place on an accessible shelf of anyone's library. Unfortunately the edition is limited and copies are not readily procurable.

H. G. L.

Island Heritage. By William Cubbon. George Falkner and Sons, Ltd., Manchester. 18s. Mr. William Cubbon, for many years Director of the Manx Museum, has devoted

a lifetime of more than eighty years to the history and traditions of his native island. This book is not a formal history of the Isle of Man, but rather a series of connected essays in more or less chronological sequence dealing with certain aspects of Manx history, folklore and antiquities. Though intended primarily for Manxmen, it does not presume so intimate a previous acquaintance with the island as to be unintelligible to the outsider, though one would be glad at times of a clear map, showing all the places referred to in the text (Speed's map, which is used as an endpaper, though interesting and attractive, is not of much practical use).

Prehistory is hardly dealt with by Mr. Cubbon, apart from a couple of illustrations of food vessels, and such monuments as the Cashtal yn Ard horned cairn are not even mentioned. He begins with the rather shadowy period of early Celtic Christianity, followed by the long period of Viking sovereignty, which lasted in Man from the first half of the ninth to the second half of the thirteenth century. While the focus of the book is perhaps more historical than archaeological, Viking ship burials are treated at some length, as also are the remarkable stone cross-slabs at Malew, Andreas, Jurby and Maughold with representations of scenes from the Sigurd Saga. The story is carried on through the chequered centuries of the Stanley and Atholl lordships down to the present day. The chapter on the Manx Museum, opened as recently as 1922, is of considerable interest.

The illustrations, both text-figures and plates, are copious and informative, ranging in subject from the possible inauguration stone from the Castleward earthwork to a most diverting satirical woodcut of the House of Keys in 1790.

H. A. W.

Ancient Monuments in Northern Ireland not in State Charge. Published by H. M. S. O., Belfast. 1952. (Pp. 64, 16 Plates and 17 Text Figures.) 2s.

This is a supplement to the earlier publication on the monuments in Northern Ireland which are in State charge, and deals with the more important of those the maintenance of which has not yet become a responsibility of the Works Division of the Ministry of Finance.

A short sketch of life in Stone Age Ulster introduces the megalithic burial monuments of the end of that Age, with plans of the Horned Cairns which prevail in the province, and of the Passage Graves found there, with due reference to those elsewhere in Ireland. The Bronze and Iron Ages are also dealt with, but the greater part of the text is devoted to later monuments dating from the Early Christian period to the end of the XVIIIth century. Some buildings in the Classic tradition and belonging to the early part of the following century are also mentioned. The historical background is concisely yet adequately drawn and the Ulster building types are described in detail. Specially welcome is the treatment of the 'tower-houses' of the XVth and XVIIth centuries and of the Plantation bawns and 'castles' which are such notable survivals of the Ulster landscape of the century followed; subjects which, at least in detail, have been rather neglected hitherto.

The plates, which include some air-photographs and subjects as diverse as earthworks and 'barn' churches, are excellent, as are the attractively drawn and useful text-figures. Not the least valuable feature of the booklet is the 20-page annotated list of monuments, by counties, with which it concludes. It is supplemented by a distribution map.

The Ministry is to be congratulated on this informative and lucidly written production, which should be in the hands of everyone interested in the ancient monuments of Ireland, north or south. If distributed as widely as its merits deserve it will give the general public a new comprehension of the cultural background of this country, and can hardly fail to advance the cause of the preservation of every notable relic of the rrish past.

H. G. L.

Journal of the Cork Historical and Archaeological Society. Vol. LVII, No. 185, January-June, 1952; No. 186, July-December, 1952.

Three articles in the January-June issue of the Journal deal with Ballyvourney. Co. Cork, and its Patroness, St. Gobnet. Michael J. O'Kelly gives an account of the excavation of the circular structure which stands to the west of the church ruins and which is known to the people as St. Gobnet's 'house' or 'kitchen.' The decorated stones, three in the walls of the ruined church, and one in a field to the N.-E. of the church,

are described by Mlle Françoise Henry, and D. O h£aluighthe gives an account of St. Gobnet. "Three Pages from Irish Gospel-Books" is the subject of an interesting paper by Michael Duignan. In "A Microcosm of Pre-Famine Ireland," H. C. Brookfield discusses a contemporary report of the Mallow district, 1775-1846. John T. Collins continues his papers on "The O'Crowleys of Coill t-Sealbhaigh."

In the July-December issue, Liam Ó Buachalla continues "Contributions towards the Political History of Munster, 450-800 a.d." Seán Ó Coindealbháin, M.A., in Part VII of "The United Irishmen in Cork County," rescues from oblivion the names of some of those Corkmen who 'rose in dark and evil days to right their native land.' An interesting article, "Hair Hurling Balls," by A. T. Lucas, describes methods of making balls of cowhair for use as children's playthings. John T. Collins continues his papers on "The O'Crowleys of Coill t-Sealbhaigh." Arthur E. J. Went, D.Sc., has an informative article on "Fishes in Irish Heraldry," and Pauline Henley, M.A., has notes on Irish words in Spenser's Views of Ireland.

County Louth Archaeological Journal. Vol. XII, No. 3, 1951.

In "Ui Cruinn, a lost Louth Sept," An tAth Tomas O Fiaich rescues a forgotten sept from oblivion and identifies as many as possible of its individual members by a careful collation of the annals and genealogies. A. K. Longfield (Mrs. H. G. Leask) gives a description of late eighteenth and early nineteenth century decorated headstones in County Louth. Interesting information about the "Mantle of Saint Brigid" at Bruges is given by H. F. McClintock. Rev. Dermot MacIvor continues "Historical Notes on Paughanstown, Roestown and Hacklim," Shorter articles in this issue are: "The West Cross, Monasterboice: A Note and a Suggestion," by T. A. Lucas, "A New Dug-out Canoe," by J. J. R., "A Stone Chisel from County Limerick," by J. J. R., and "Tithe Census of Kilsaran and Gernonstown."

Journal of the Co. Kildare Archaeological Society. 1950, 1951 and 1952. Vol. XIII, No. 3.

The continuation of the "Ordnance Survey Letters for County Kildare" in this issue of the Journal deals with the Parishes of Killashee, Coghlanstown, Carnalway, Johnstown, Kerdiffstown, Jago. Brannoxtown and Kilcullen. A. K. Longfield (Mrs. H. G. Leask) gives an interesting account of the headstone at Killashee erected by John Kelly in memory of his father who died in 1777. The agreement between Crosbie and the Seven Septs of Leix regarding the terms of their transplantation to Kerry is the subject of a paper by the Editor. "The Interpretation of Heraldry," by Ailfrid Mac Lochlainn, M.A., gives useful information about heraldic displays. Dr. Käte Müller-Lisowski in "Nicknames and Namesakes," discusses old relationships between Ancient Ireland and Iceland.

Irish Historical Studies. Vol. VIII. No. 30. September, 1952.

"The Catholics of the towns and the quarterage dispute in eighteenth-century Ireland," by Maureen MacGeelin, B.A., is an account of the charge payable by all guild members every quarter during the period of the penal laws. In Ireland this charge came to be regarded as an unjust tax on Catholics, and the agitation to resist it by the Catholic non-freemen in the cities and towns became merged in the struggle of the Catholics to obtain a mitigation of the penal laws. "The machinery of the Irish Parliamentary Party in the General Election of 1895," by F. S. L. Lyons, M.A., shows that the importance of the election of 1895 lay in the fact that as a result of that campaign the methods whereby in the past the party had controlled the conduct of the elections were permanently discredited, and the party itself confronted with a very serious crisis. The Journal has its usual Bibliography, "Writings on Irish History, 1951," and Reviews and Short Notices of books and periodicals.

PROCEEDINGS.

JULY TO DECEMBER, 1952.

Meetings of the Society were held as follows :-

- 6. September 23, 1952.—Quarterly Meeting at the Society's House. Four members were added to the Society's Roll. Lecture: "Early Irish Watermills" by Mr. A. T. Lucas, M.A., Hon. General Secretary.
- 7. November 4, 1952.—Ordinary Meeting at the Society's House. Lecture: "The Norsemen in Ireland" by Miss Maire MacDermott, M.A., Member.
- 8. December 5, 1952.—Statutory Meeting at the Society's House. Seventeen members were added to the Society's Roll. Lecture: "Boiled or Roast? Experiments in an Ancient Irish Cooking Place" by Professor M. J. O'Kelly, Member.

The following excursions were made:-

Saturday, July 26, 1952.—Glendalough.

Saturday, September 27, 1952.—Newgrange, Dowth and Knowth.

REPORT OF THE COUNCIL FOR 1952

At the Annual General Meeting of the Society held at the Society's House on January 29, 1952, the following were elected to their respective offices:—

President:—District Justice Liam Price, M.R.I.A., Fellow.

HON. GENERAL SECRETARY:—A. T. Lucas, M.A., Member.

Hon. Treasurers:—J. Maher, Member, and B. J. Cantwell, Member.

Hon. Auditors:—George B. Symes, Member, and R. E. Cross, Member.

MEMBERS OF COUNCIL:—Rev. M. L. Ferrar, Member, P. Healy, Member, and J. R. W. Goulden, Member.

During the year eight meetings of the Society were held: the papers read and the lectures given are listed in the Journal for 1952 at pp. 190 and 191 and 1953 at p. 109.

The following nominations for President, Officers and Members of Council for 1953 were received:—

President:—Professor Seán P. Ó Ríordáin, Ph.D., D.Litt., Fellow.

VICE-PRESIDENT FOR LEINSTER:—G. F. Mitchell, Fellow.

Hon. General Secretary:—A. T. Lucas, Member.

Hon. Treasurers:—John Maher, Member, and B. J. Cantwell, Member.

Members of Council:—Senator E. A. MeGuire, Fellow, Dr. Françoise Henry, Hon. Fellow, and Brian Mae Giolla Phádraig, Member.

The foregoing nominations being in accordance with the Statutes and Bye-Laws, and not in excess of the several vacancies, the persons named are to be declared elected to the respective offices for which they have been nominated.

The Council has nominated George B. Symes, *Member*, and R. E. Cross, *Member*, as Hon. Auditors for the year 1953.

Meetings of the Society will be held during the year 1953 as follows:-

Tuesday, January 27 ... Annual General Meeting.

" March 3 ... Meeting for Paper.

,, April 21 ... Quarterly Meeting.

, June 2 ... Meeting for Paper.

Quarterly Summer Meeting.

" September 22 ... Quarterly Meeting.

November 3 Meeting for Paper.

" December 8 Statutory Meeting.

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During the session nine meetings of the Council were held at which the attendance was as follows :--

MR. LIAM PRICE, President	7	Mr. B. J. Cantwell,						
DR. H. G. LEASK, Past President	7	$Hon. \ Treasurer \ \dots$	8					
REV. DR. JOHN RYAN, S.J.,		*Mr. J. Hunt, Member	-6					
Past President	3	MISS A. J. OTWAY-RUTHVEN,						
Professor Seán P. Ó Ríordáin,		Member	6					
Vice-President	5	Professor J. J. Tierney,						
Dr. E. MacLysaght,		Member	5					
Vice-President	1	Dr. H. W. Parke, Member	7					
Dr. T. B. Costello,		Mr. H. A. Wheeler, Member	-6					
$Vice ext{-}President \qquad \dots$	0	Mr. R. de Valera, Member	4					
LADY DOROTHY LOWRY-CORRY,		Mr. P. J. Hartnett, Member	-6					
Vice-President	0	†Dr. St. John Brooks, Member	$\overline{6}$					
Mr. A. T. Lucas,		†Dr. L. O'Sullivan, Member	1					
Hon. Gen. Secretary	8	Rev. M. L. Ferrar, Member	-6					
Mr. John Maher,		Mr. J. R. W. Goulden, Member	9					
Hon. Treasurer	6	Mr. P. Healy, Member	7					
* Co-opted 1st March, 1950.								

EXCURSIONS.

Excursions were made as follows:—

April 5, 1952.—To Dunshaughlin, Killeen, Dunsany and Tara. The party numbered 116.

May 13-17, 1952.—To the midlands with Athlone as centre. The sites visited were Roscommon (castle and abbey), Tulsk, Ratheroghan, Twyford, Mount Temple, Uisneach, Durrow, Castlestrange, Clonfinlough, Clonmacnoisc, Ferbane, Clonfert, Cloontuskert, and by kind permission of Mrs. Upton, who entertained the party to tea, Knockast. The party numbered 72.

July, 26, 1952.—To Glendalough. The party numbered 85.

September 27, 1952.—To Newgrange, Dowth and Knowth. The party numbered 101.

November 1, 1952.—To St. Michan's Church, Dublin. An organ recital was given by Mr. W. J. Watson, M.A., Mus.B., F.R.C.O. The party numbered 73.

MEMBERSHIP.

During the year 3 Fellows and 49 Members were added to the Society's roll.

Fellows:—Mrs. Katherine Cairns, Messrs. J. J. O'Leary and R. C. Webb.

[†] Co-opted 27th January, 1952.

Members:—Rev. J. T. Belton, Messrs. P. R. Boyd, L. C. Brooks, D. Cantwell, W. J. Clancy, H. Cravitz, C. B. Crawford, D. J. Cussen, Miss M. C. Dargan, Messrs. R. B. Dockrell, P. J. Drummond, T. Doherty, W. S. Ferguson, P. Flatrés, P. Glynn, W. L. Gerrard, Mrs. E. G. Gwynn, Mr. T. J. Hughes, Miss M. A. Jackson, The Librarian, Inst. of Archaeology, University of London, Mr. J. V. Luce, Mrs. M. L. Luce, Messrs. F. S. L. Lyons, F. McCormick, F. J. McKenna, Miss Lillias Mitchell, Professor T. W. Moody, Mr. B. O'Connell, Lt. Col. F. Ó Catháin, Messrs. P. Ó Méráin, F. W. Padbury, Miss H. R. Perrott, Miss E. G. Ridgway, Mrs. J. Rowan, Dr. J. F. Sheppard, Dr. M. C. Sheppard, Mrs. J. K. Tottenham, Dr. F. G. Trobridge, Mrs. V. E. Upton, Rev. W. E. Vandeleur, Miss M. W. Walpole, and Rev. A. T. Waterstone.

Family Membership:—Mrs. E. A. Collen, Mrs. R. de Valera, Dr. W. Phelan, Mrs. E. Quane, and Mrs. M. A. Trobridge.

The resignations of 4 Fellows and 54 Members were accepted.

The deaths of 3 Fellows and 5 Members were recorded:—

Fellows:—The Rt. Hon. The Earl of Dunraven, Mr. Conor O'Brien, and Major G. O'Grady.

Members:—Dr. R. H. Alton, Mr. D. Keane, Lt. Col. H. P. Lefroy, Miss Mary Lett and Mr. D. Rourke.

The names of the following have been removed from the roll under Rule 10—they may be restored to membership on payment of the amount due:—Mrs. A. M. A. Ainsworth, Miss Jennie Burke, V. Rev. Patrick Canon Casey, Most Rev. Dr. Michael Fogarty, Rev. Fr. Gerald, O.F.M. Cap., Messrs. S., McD. Kennedy, P. D. Little, Dr. T. McIntyre, Mr. G. Minch, Miss K. Mockler, V. Rev. J. Canon Mulligan, Messrs. M. J. Mulreany, P. Ó hAnnracháin, Mrs. H. H. O'Malley, A. O'Rahilly, P. Ó Seaghdha, R. Power, D. M. Ryan, Miss G. C. Smyth.

The losses to the society by deaths and resignations amounted to 66. The number removed from the roll under Rule 10 amounted to 21 and the accessions amounted to 52.

The number of Fellows and Members now on the roll is distributed as follows:—

Honorary Fellows				8
Life Fellows		•••		32
Fellows	•••	•••	•••	95
Life Members		•••		43
Members	• • •	•••	•••	595
			_	
	TOTAL			773

FINANCE.

The total receipts from all sources during the year 1952, from subscriptions, dividends, sale of publications, excursions, rents and miscellaneous receipts amounted to £2,228 18s. 9d.

The total expenditure was £2,291 3s. 0d., as follows:—Printing Journal 1951 Pt. II, printing and illustrating Journal 1952 Pt. I and illustrating Journal 1952 Pt. II, £845 10s. 2d.; rents, salaries, stationery, excursions, insurance and general expenses £1,445 12s. 10d.

The Society holds investments of £100 Irish Free State 4th National Loan, £1,000 Defence Bonds, £280 Land Bonds, £155 Post Office Saving Certificates and £150 deposit in Post Office Saving Bank.

LIBRARY.

In addition to current periodicals the following publications were also received:—

- Castro de Villa Nova de S. Pedro, 1. Excavations, 2. Metal Objects; by Major A do Paço and Maria de Loudres Costa Arthur, presented by the Authors.
- The Dawn of European Civilisation by V. Gordon Childe; presented by Mr. Brian Coghlan.
- New Light on the Most Ancient East by V. Gordon Childe, presented by Mr. B. Coghlan.
- Parish Registers, 11 Volumes; presented by Mrs. H. P. Lefroy.
- Flashes of Wit and Wisdom by Harry Percival Swan; presented by the Author.
- The Society of Antiquaries of London: Notes on Its History and Possessions; presented by Mr. Brian Coghlan.
- The Political Economy of Art by John Ruskin; The New Guide to Westminster Abbey by H. F. Westlake; What to Look for in an Old Church by Hope Urwin; A Vision of the Ages by Flinders Petrie; The Megalithic Monuments of Carnac and Locmariaquer by Z. Le Rouzic; The Cathedral Church of Canterbury by Hartley Withers, B.A.; Tuam Raths and Souterrains by T. B. Costello, M.D.; The Life of the Greeks and Romans by F. Hueffer; A Short History of Sepulchral Cross-Slabs by K. E. Styan;

114 ROYAL SOCIETY OF ANTIQUARIES OF IRELAND.

Five Italian Shrines by W. G. Waters; The Reliquary and Illustrated Archaeologist 1895 and 1897, presented by Mr. Mark Andrew.

For Review:—

Mourne Country by E. Estyn Evans.

Dublin 1660-1860 by Maurice Craig.

Guide to Belfast in its Regional Setting. Handbook of the British Association for the Advancement of Science for the Belfast Meeting, 1952.

Island Heritage by William Cubbon.

Der Tassilokelch by Gunther Hassloff.

Beginning in Archaeology by Kathleen M. Kenyon.

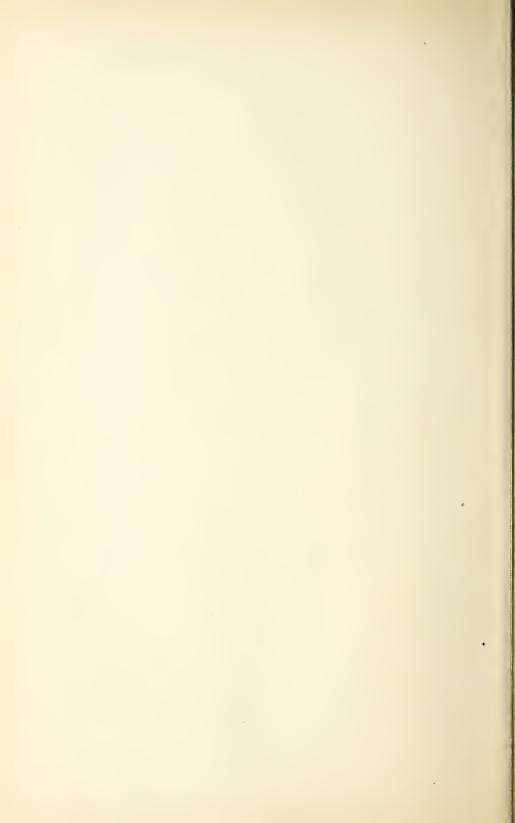
The Heritage of Early Britain ed. M. D. Knowles.

Royal Society of Antiquaries of Ireland Statement of Accounts for 1952

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We have examined and compared the 1952 Annual Accounts with the Vouchers and Bank Pass-book and found same correct showing a debit balance on working in the year of £62 4s. 3d. The Society holds the following investments:—£100 5½% National Loan, £155 (F.V.) Post Office Saving Certificates, £280 (F.V.) 4½% New Lands, £150 Post Office Saving Bank.

(Signed) R. ERNST CROSS $\left.\begin{array}{ll} Hon. \ Auditors. \\ G. \ B. \ SYMES \end{array}\right.$ 9th April, 1953.



THE ROYAL SOCIETY OF ANTIQUARIES OF IRELAND

OFFICERS AND COUNCIL FOR 1953

PRESIDENT ... Professor Seán P. O Ríordáin.

PAST PRESIDENTS ... Dr. H. G. Leask.

Dr. John Ryan, S.J.

District Justice Liam Price.

VICE-PRESIDENTS ... Lady Dorothy Lowry-Corry (Ulster).

Dr. E. MacLysaght (Munster). G. F. Mitchell (Leinster). Dr. T. B. Costello (Connacht).

Honorary General Secretary—A. T. Lucas.

Honorary Treasurers—John Maher, B. J. Cantwell.

Honorary Secretary Publications Committee-H. E. Kilbride-Jones.

MEMBERS OF COUNCIL.

Dr. H. W. Parke, H. A. Wheeler, R. de Valera, Rev. M. L. Ferrar, P. J. Hartnett, Dr. E. St. John Brooks, J. R. W. Goulden, Dr. W. O'Sullivan, Dr. Françoise Henry, B. Mac Giolla Phadraig, Senator E. A. McGuire.



THE JOURNAL OF THE ROYAL SOCIETY OF ANTIQUARIES OF IRELAND



1953

CONTENTS

	Page
Powerscourt and the Territory of Fercullen—by Liam	
Price	117
Some More 18th Century Wall-Paintings in Ireland:	
Peter de Gree, etc.—by A. K. Longfield	133
14mm Character May and Danish as May and L. T. Co. Town	
14TH CENTURY MONASTIC ESTATES IN MEATH—by E. St. John Brooks	140
	-20
Some Hitherto Unpublished Pictures of 16th Century Irish	
People—by H. F. McClintock	150
RICHARD BOYLE, IRONMASTER—by H. F. KEARNEY	156
FISHERIES OF THE RIVER LIFFEY—by A. E. J. WENT	163
NEOLITHIC HABITATION SITE, STONE CIRCLES AND ALIGNMENTS	
AT BEAGHMORE, Co. TYRONE—by A. McL. MAY	174
Miscellanea:	
Miscenanea:	
The Saint Johnstown Head—(O. DAVIES)	198
The Tomb of Archbishop Edmund Butler at Cashel—(J. Hunt)	199
Bodenstown, Co. Kildare—(L. Price)	200
OBITUARY—ROBERT LLOYD PRAEGER	202
Notices of Books	204
, , , , , , , , , , , , , , , , , , , ,	
Proceedings	207

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POWERSCOURT AND THE TERRITORY OF FERCULLEN.

By LIAM PRICE, Past President.

(Read 27th January, 1953).

THE history of the manor of Powerscourt in the sixteenth century, when it was in the possession of the O'Tooles, is well known, but it was in it was in the possession of the O'Tooles, is well known, but it may be no harm to give a summary of it from the contemporary documents, in order to bring out some points of interest that are worth examining afresh. It was a grant made by King Henry VIII in 1541 to Tirlagh O'Toole that established his legal ownership of the manor, but we find the O'Tooles in possession of it at a much earlier period, though it is not quite clear how they first came to occupy it. It was not O'Toole territory in the period before the Anglo-Norman invasion. Powerscourt is a name of Anglo-Norman origin, and the manor was in Anglo-Norman occupation for more than a hundred Tirlagh O'Toole's petition of 1540, on which the grant of 1541 was based, requests the King to grant him a certain territory called Fercullen, with the villages in it, which he says are all desolate except Powerscourte; he says that his ancestors had held this territory until they were expelled by the Earls of Kildare. I have not found this name Fercullen recorded before the year 1450, and it is not easy to say when it was first used as a name for the manor of Powerscourt. It is an anglicisation of the name Fera Cualann, which occurs in several Irish sources; but these seem to show that the place-name Fera Cualann was used to describe a much larger area than the territory which was called Fercullen in the sixteenth century.

The Statute Roll of 1450 records a grant to Sir Esmond (Edmond) Mulso of the lordship of ffercolyn, which is described as situated in the frontiers of the marches and the key and protection for all the county of Dublin and the county of Kildare; he was to make a town there, which should be called Mulsoes Court.² A Statute of 1463, however, sets out that Fercolyn has from time beyond memory been in possession of Irish enemies, and grants it to the Mayor and Commons of the city of Dublin. The matter is cleared

¹ State Papers, Henry VIII, Part III, vol. III, p. 270.

² Stat. Rolls, Henry VI, p. 214.

up by another Statute of 1463, which discharges the bond of a man who went surety for Mulso; it says that Mulso "thought to have conquered" Fercolyn, but that he had died without paying any of the sums due on the bond.³

It has been stated in a highly imaginative account⁴ of this transaction that Mulso drove the O'Tooles from their strong holds, and built a castle and town, which later belonged to the Edwards family and was known as Old Court. The writer had evidently seen an inaccurate copy of the Statute Roll, and he identified the place wrongly with Oldcourt near Bray. In 1450 Oldcourt was in Archbolds Country, whereas Mulso's grant was in Fercullen, three or four miles away.

Mulso was seneschal of the liberty of Meath; it may be assumed that he was an Englishman, and perhaps he was brought over by Richard Duke of York, who came over as Viceroy in 1449, and who was the owner of the lordship of Meath. Nothing more is recorded about Mulso, but it is obvious that his grant was a dead letter, and that he built no castle or town on the lands of Fercullen.

The intention of the Government was of course to have a fortress erected to protect the Pale from raids from the Wicklow mountains, but this was not done until the great Earl of Kildare was in charge of the Government of An official report made during the rebellion of Silken Thomas states that in 1535 the O'Tooles destroyed the castle at Powerscourt, "one of the fairest garrisons in this country, the building of which cost the old Earl of Kildare and the inhabitants of the county of Dublin four or five thousand marks." This was Gerald, or Garret Mor, 8th Earl of Kildare, who succeeded his father in 1477 and died in 1513. His rebuilding of the castle probably took place before the end of the fifteenth century. No reference to any grant of Powerscourt to the Earl has been preserved; it seems likely that he took possession of the district as "uninhabited land", by virtue of the Act of Parliament passed in 1482,6 and no doubt it was in this way that Powerscourt became Fitzgerald property; the grant to the Mayor and Commons was probably treated as void because they had not built a fortress on the land. After the rebellion and the forfeiture of the Fitzgerald estates, the manor of Powerscourt and all lands in Fercolyn came into the King's hands by reason of the attainder of Richard Fitzgerald, son of Garret Mor and brother of Gerald 9th Earl of Kildare.7

³ Stat. Rolls, Edward IV, pp. 201, 231.

⁴ Dublin Penny Journal, vol. 2, 1833, p. 125; and see Scott, Stones of Bray, p. 123.

⁵ State Pa., Hen. VIII, Pt. III, vol. II, p. 264: Car. Cal. 1515-74, p. 70. In 1515 Powerscourt was one of the castles recommended to be given to Englishmen, as part of a plan for the pacification of Leinster.

⁶ Alen's Reg., fo. 153: Curtis, Mediaeval Ireland, p. 390.

⁷ Exchequer Inqu., cited in J. Kildare A.S. vi (1910) p. 128.

In 1538 these and other lands which had belonged to Richard Fitzgerald were granted to one of the Talbots of Belgard.8 In 1540, however, a policy of conciliation was undertaken towards Irish chiefs who were prepared to submit to the Government, and Tirlagh O'Toole was sent to England with a letter of recommendation to the Duke of Norfolk. In December, 1537, he had entered into an agreement with the Deputy for a three year truce, on condition that he would hold the lands which his father, Art, had held forty years previously, and no others, and that if he broke the truce he would surrender the manor (prediolum) of Fercullen, unless he made satisfaction within a month; and he was to continue to receive the same annual payments as had been made to him during the past forty years.9 He now petitioned to have the territory of Fercullen granted to him, to hold by knights service; the petition sets out the territory, as follows: "The said Fercullen containeth in length from Bernecullen by east and south of Glassemuckey to Polcallen by west the Wyndegates, being five miles in length, and 4 in breadth, being the more part mountains, woods, and rocks, and the other part good fertile lands"; it is stated to contain fifteen villages, which are named, all desolate except Powerscourte. 10

This shows that the territory which is called Fercullen in this petition extended from Glassamucky near the source of the river Dodder to the western slopes of Big Sugarloaf, and from Monastery near Ennisherry to the Deerpark.

The King ordered that the lands should be granted to O'Toole, on strict conditions, such as that he should cause the inhabitants to use the English habit and language as much as they could, that they should not levy black rents, and so on, and on his handing over one of his sons to the Government as a hostage. The arrangement made with O'Toole was used as a precedent for dealing with other Irish chiefs who were prepared to make submission and to hold their lands from the King by tenures similar to those under which English landholders held from the Crown. Accordingly it was directed that Talbot should surrender this portion of his grant, and a patent was drafted in 1541 under which Tirlagh O'Toole was to hold Powerscourt and Fercullen in tail male, subject to the provisions which the King had directed.¹¹

Before the letters patent were actually issued to Tirlagh O'Toole, he was killed. We only know of this from the State Papers. 12 It was Tirlagh macShane O'Toole of Imaal who killed him, and it seems probable that this

⁸ Fiant, Hen. VIII, no. 67.

⁹ State Pa., Hen. VIII, Pt. III, vol. II, p. 522.

¹⁰ ibid., Pt. III, vol. III, p. 270. The petition also asks for a grant to Art Oge O'Toole of the manor of Castell Kevyn and the Ferture. I have modernised the spelling, except of the place-names.

¹¹ Fiant Hen. VIII, No. 548.

¹² State Pa., Hen. VIII, Part III, vol. III, pp. 370, 438.

occurred in a contest for the chieftainship of the clan, of the kind which we find so constantly recurring in Irish history. In 1543, however, the Deputy and Council recommended the King that a grant of the lands should be made to Brian O'Toole, a son (or possibly a grandson) of Tirlagh macArt O'Toole.¹³ The grant was made in 1547 to this Brian, who was called Brian an chogaidh, and who in that year helped the English to defeat a force of rebel Fitzgeralds at Threecastles near Blessington.¹⁴ Probably he already had possession of the lands.

According to an Inquisition taken in 1603, Brian O'Toole died in 1549, and on his death Phelim O'Toole took possession of Powerscourt; he appears to have been a brother of Brian. The jury goes on to say that Phelim's son and heir, Garrett O'Toole, with other tenants and inhabitants of the said Manor, joined in the rebellion of Feagh MacHugh O'Byrne and was killed in 1582 at Glencree during his father's lifetime. Phelim remained in possession of Powerscourt until his death in 1603.

It has been stated that it was Phelim O'Toole of Powerscourt who handed up Hugh Roe O'Donnell on the occasion of the latter's first escape from Dublin Castle in January, 1591; in fact, however, Phelim O'Toole of Powerscourt was not concerned in the matter at all, but a namesake of his, Phelim O'Toole, younger brother of Barnaby O'Toole of Castlekevin. 16

The Inquisition of 1603 says that after the death of Phelim, his grandson Tirlogh, son of Garrett, entered into possession of the manor. Sir Richard Wingfield, however, applied for a grant of Fercullen and Powerscourt. He had been made Marshal of Ireland in January, 1600. The lands were declared forfeit on account of the rebellion of Garrett O'Toole, and on the 27th October, 1603, they were leased to Wingfield for 21 years; in 1609 he received a grant of the lands for ever, and in 1618 he was created Viscount Powerscourt. He died without issue, but the title was revived in 1743 when Richard Wingfield of Powerscourt, the descendant of his cousin, was raised to the peerage as Baron Wingfield and Viscount Powerscourt.

Lord Walter Fitzgerald says "The Castle of Powerscourt is not now in existence, and I believe its very site is unknown." But the 7th Viscount Powerscourt, writing in 1903, says "I feel sure that the old castle was incorporated in the present house, because in the two central rooms, both on

¹³ *ibid.*, vol. III, p. 460.

¹⁴ Morrin, Cal. of Pat. & Close Rolls, I, p. 151: Fiant Edw. VI, No. 72: see A.F.M., vol. v, p. 1500.

¹⁵ See J. Kildare A.S. vi (1910) p. 137, and the genealogy facing the same page.

¹⁶ J.R.S.A.I. xxxviii (1908), p. 26, and Rev. P. Walsh in Ir. Eccles. Record, January, 1930, p. 66.

¹⁷ Cal. St. Pa. 1599-1600, p. 447; Erck's Repertory of Chancery Enrolments, p. 548; Cal. Pat. Rolls, Jas. 1, p. 141.

the ground and first floors, the walls are of great thickness, the embrasures of the windows in these two rooms on the south front being some 8 feet deep." 18

The history of Powerscourt in the early Anglo-Norman period is rather obscure. In 1541 Tirlagh O'Toole had claimed that his ancestors had held the land called Fercullen until they were expelled by the Earl of Kildare. We have seen that what he was referring to was the building of the castle at Powerscourt by Gerald, 8th Earl of Kildare, and that this probably took place between 1482 and 1500. Some recognition is given to this claim by the agreement of 1537 made between O'Toole and the Deputy, for it began by saying that he should hold all that his father Art had held peacefully 40 years before. I have found nothing to show for how long exactly the O'Tooles had occupied the country around Powerscourt. But they must have overrun and taken possession of the neighbouring district of Castlekevin, or, as it was called, the Ferter, long before the end of the fourteenth century. We know from Friar Clyn that Castlekevin, which as he says belonged to the Archbishop of Dublin, was destroyed by the Irish in 1343.19 It is significant that we have a list of the landholders in the Archbishop's manor of Castlekevin in the middle of the thirteenth century (c. 1260), but in the series of rentals of the Archbishop's manors which were made in 1326 Castlekevin is not included; and at that time, 1326, Killegar and other places near Powerscourt were described as waste and among the Irish.²⁰ The district of the Ferter stretched as far as the top of the slope above the head waters of the river Vartry, and from there the country around Powerscourt is in full view in the valley beneath, and even if there had still been any English tenants remaining there in the early fifteenth century they would have been in no position to make a defence against the raids of the O'Tooles.

There is, however, an entry in the early records which I believe indicates the period at which the O'Tooles' occupation of the Powerscourt district had become an accepted fact. It is to be found in the Chancery Rolls of Edward III's reign in the year 1355. The Justiciary at the time was Thomas de Rokeby, who made a serious effort to protect the remaining English settlers in the neighbourhood of Dublin. Among other measures taken for this purpose, he made an agreement with Odo Otothil that Otothil should remain in the district of Balytyn with a number of his men for 40 days, to defend the marches of the English from the town of Tavelagh (Tallaght) to the Wyndeyaties (Windgates) against the hostile invasions of the Obryns; for this Otothil was paid 55 marks.²¹ It would appear from this entry that Balytyn was the

¹⁸ J. Kildare A.S., loc. cit., p. 138; A Description and History of Powerscourt, London, 1903. Canon Scott accepts the latter statement, Stones of Bray, p. 152.

¹⁹ Clyn's Annals, ed. Butler, p. 30.

²⁰ Alen's Reg., fol. (326).

²¹ Cal. Chancery Rolls, Tresham, p. 63; Gilbert, Viceroys, p. 206.

name of a place somewhere between Tallaght and Windgates, and I believe that it was the old name of Powerscourt.

The earliest record that I have found of this name is in a grant to William le Deveneys in the year 1283 of land in Balitened and three other places in the tenement of Obrun. In 1290 Deveneys asked for a charter of warren there, which was granted. In 1299 he got a Royal grant of the manor of Thorncastle (now Mount Merrion), and in 1302 we find Balyteneth in the possession of Geoffrey le Poer; it had already for some years been in the hands of Eustace le Poer, who enfeoffed Geoffrey. One of the places mentioned in 1290 with Ballitened is Tagmolyn; this also came into the possession of Eustace le Poer, as a record to which I will refer later shows.

In 1316 we find one of the King's officials repairing the castle of Balyteny. It is evident that the Government took the place into their hands in order to provide a defence against the Irish of Leinster, who had seized the opportunity given by Edward Bruce's invasion, and had burned Newcastle, Bray, and all the villages in the neighbourhood.²³ Later on, between 1344 and 1358, the names of several constables of the castle of Balyten are recorded; in the latter year the castle is said to be 'now ruined'.²⁴ The last mention of it is in a manuscript note of an entry in the Memoranda Rolls of 21 and 22 Ric. II (1398-9) recording the grant to Sir John de Stanleye of the castle of Balyten and the lordship and lands of Bree (Bray).

We have seen that Balitened was in the territory which the Anglo-Normans called Obrun. Obrun was the name of a royal manor which lay to the south of Dublin. Mills in his valuable paper on the Norman Settlement in Leinster, in our Journal, 25 says that it was the district lying westward from Bray, which had been given to Walter de Ridelesford by Strongbow, under the name of the land of the sons of Thorkil. Obrun in fact seems to have been larger than this, 26 but at any rate it included this district, in which Powerscourt is situated.

The position of Balyteny is indicated in a description of the boundaries of Kilternan in 1407;²⁷ this shows that it was in the same neighbourhood as Ballycorus. Ballycorus, which was granted to Ranulph le Mareschal in 1283, was also in the manor of Obrun.²⁸

²² Sweetman, C.D.I. 1252-84, p. 477: 1285-92, p. 309: 1302-7, p. 17.

²³ Laud Annals, in Chart. St. Mary's Abbey, ii, p. 348.

²⁴ Cal. Chanc. Rolls, pp. 20, 44-6, 49, 50, 54, 56, 59, 60, 64, 66-7, 69, 78.

²⁵ Vol. xxiv (1894), 161-175.

 $^{^{26}\,\}mathrm{See}$ the references given by Dr. Brooks in his Paper 'The de Ridelesfords', in this Journal, vol. lxxxi (1951), p. 119, n. 16.

²⁷ Chart. St. Mary's Abbey, i, p. 280 : see also p. 333.

²⁸ Sweetman, C.D.I. 1252-84, p. 477.

I have already mentioned Eustace le Poer at Balyteneth. In 1298 he accounted for three years rent out of it. He may be the same as Eustacius le Poer whose death is recorded by Clyn in 1311. In any case the following entry in the Archbishop's rental of the Manor of Shankill, dated 1326, clearly refers to him: "Eustache le Powere's heir holds a carucate at Stamelyn, used to pay 20s.; it is now among the Irish". Alen's note to this is: "James Fitzgarrad holds it at this day, 1531, and it is commonly called Powerscourt".29

Stamelyn in this entry is the same place as Tagmolyn of the grant of 1290, and there is no difficulty about identifying it; it is the place now called Kilmalin, which in the thirteenth century list of churches in the Deanery of Bray was called Stamoling,30 and which O'Toole's petition of 1540 calls Kylmoolyn. This is cell Moling, 'St. Moling's church': Stamoling, that is teach Moling, has the same meaning; teach, tigh, 'house', was commonly used of a church, and in East Leinster the word often has an s added to it, as in Staholmog in Meath, or Stillorgan in Dublin.31 Kilmalin adjoins Powerscourt Demesne, and probably originally included part of it, for St. Moling's well, which is now covered over, was in Powerscourt Demesne.

From these references it would appear that Balytyn was the place which at a later date was called Powerscourt. They are both close to Kilmalin, in the old manor of Obrun, and in the same neighbourhood as Ballycorus. The land which Eustace le Power's heir held at Kilmalin in 1326 was called Powerscourt when Archbishop Alen wrote his note in 1530. Powerscourt (as Mills says) is evidently derived from this family of le Power, who owned Balyten in 1298 and 1302. The reason why their land was not called Balyten in 1326 was that the Government had at that time taken possession of the castle of Balyten; the adjoining land was left in the le By the sixteenth century the name Balyten³² had Powers' possession. become obsolete, the name Powerscourt being used instead. The word 'court' in this name shows that there was some ancient building at the place. think it may be assumed that, when the Earl of Kildare built a castle at Powerscourt, he built it on the site where the ruined castle of Balyten stood, and probably incorporated in it some of the old building. It had evidently been in ruins since 1355, when the agreement was made with Otothil to remain at Balytyn to defend the English marches.

Tirlagh O'Toole therefore had some ground for his claim, made in 1540, that his ancestors had owned Powerscourt from time immemorial. were very probably in possession of the district before 1350; at any rate they

²⁹ Alen's Register fol. (326).

³⁰ Scott, Stones of Bray, p. 188.

³¹ Joyce, Irish Names of Places, i, pp. 65, 303.

³² The name is spelled Balitened (1283), Balityneth (1287), Balyteny (1316), Balyten (1344), Balytyn (1346), etc.

certainly held it from 1355, when Odo Otothil was paid to remain there to protect the English settlements in south County Dublin, until the Earl of Kildare rebuilt a castle there after 1482; there are records of two or three attempts by the Government to settle Englishmen there during that period, but they did not succeed. Altogether the O'Tooles' occupation of Powerscourt must have covered rather more than two hundred years.

The name Fercullen, which O'Toole's petition gives to the district, appears for the first time (so far as I am aware) in the year 1450. This seems remarkable, for Fera Cualann is an Irish name, and as a general rule the Anglo-Normans made use of the territorial names which were in existence at the time of the invasion. Thus we see the district names Obrun, Okelly, Othech, Coillach on Mills' map;³³ these represent Ui Briuin (Cualann), Ui Ceallaigh (Cualann), and (probably) Ui Teig, which are old Irish district names, and Coillach obviously stands for coilleach, meaning 'woodland, forest country': it must have been in use as a place-name, though I have not found it in Irish sources. Fercullen, however, is not mentioned by Mills, nor does it appear on his map; the reason, of course, is that it does not occur in the early Anglo-Norman documents with which he is dealing.

The Irish name Fera Cualann, meaning literally 'the men of Cualu', is used more than once as a place-name in Irish documents. It is of course quite common for a name which originally refers to a tribe or people to come to be used simply as the name of a place. Offaly, for the Irish Ui Failghe, is a well known example; this was originally the name of a Leinster sept, 'the descendants of Failghe', then it was given to their territory in Queen's Co., King's Co., and Kildare; then the Four Masters used it as a county name,³⁴ and it is now the name of the former King's Co. Another example is Fermoy, originally Fera muighe, 'the men of the plain', now the name of a barony, parish and town in Co.Cork.

An early reference to the name Fera Cualann occurs in the Leinster genealogies. Most of the kings of Leinster for 400 years before the battle of Clontarf belonged to the sept of Ui Dunlainge, whose descent was traced from Dunlaing son of Enna Nia. The genealogies mention a son of this Dunlaing, called Fergus: Fergus mac Dunlaing a quo .h. Fergusa etir Liphi & firu Cualand. Here we have Fera Cualann, meaning 'the territory of the men of Cualu', used as the name of a place at least as early as the twelfth century.

³³ J.R.S.A.I. loc. cit.

³⁴ A.F.M. vi, 2264.

³⁵ Ll. 316 a 9. In Rawl. B 502, 124 b 48, the entry reads eter Liphi & finiu Cualand. If finiu was the original word in the manuscript which the scribe of Ll. was copying, the scribe must have written firu instead of it, which would suggest that the expression Fera Cualann was familiar as a place-name in the twelfth century. Bb. 132 b 22 has etir Lifi & Feraib Cualand.

The entry does not show exactly where this place was. The territory called Life was the plain of Kildare, including Naas and Mullaghmast; Cualu was the district of the Dublin and Wicklow mountains. The location of the Ui Fergusa may possibly be indicated by the place called Tulachfergus, now Tulfarris, near Burgage, on the western boundary of Co. Wicklow. If Ui Fergusa is placed here, then, as it was between Life and Fera Cualann, Fera Cualann would have been the Blessington—Hollywood district, on the northwest side of the Wicklow mountains. In any case Fera Cualann here must be used as the name of some part of the western side of the mountains or else of the whole mountain district; it is clear that it is not the same as the sixteenth century territory which was called Fercullen.

The name Fera Cualann occurs in other Irish sources, but it is not always easy to say what value they have for historical purposes. In some of them it appears to be the name of the territory ruled over by the chief of the Ui Dunchadha, who had by the twelfth century taken the surname of MacGiollamocholmog. In the topographical poem of O hUidhrin (Tuilleadh feasa ar Eirinn óigh) it definitely has this meaning; he describes MacGiollamocholmog as 'lord over Fera Cualann'. This poem is, however, very late, having been written about the year 1400 by way of supplement to the similar poem written by O Dubhagain about 50 years earlier.

The remarkable thing about these poems, so far as they relate to Leinster, is that when they were written most of Leinster had been in the occupation of Anglo-Norman landholders and farmers for about 200 years, and many of the former Irish chiefs, whom they dispossessed, had entirely disappeared. This Anglo-Norman settlement was in its turn overrun by the Irish, though not by the original inhabitants. The Irish recovery had progressed further when O hUidhrin wrote than in O Dubhagain's time. O hUidhrin gives a full account of the Leinster territories, whose chiefs, he says, have been omitted by O Dubhagain. He describes Leinster not at all as it was in 1400, but as he believed it to have been before the Anglo-Normans came, locating dispossessed septs in the territories they had formerly occupied, and ignoring the changed conditions which existed in his day. Thus he does not mention the occupation of part of Wicklow by O Tuathail (O'Toole), but calls him chief of Ui Muireadhaigh, that is, the southern part of County Kildare, though most of this remained undisturbed in English occupation; part of it, the barony of Narragh, had in 1399 been granted by the King to Art MacMurrough (the king of Leinster) in consequence of his marriage to the English heiress Elizabeth Calf. 36

O hUidhrin's description of the present county of Wicklow in particular has no relation to the actual situation as it then existed. He calls O Taidhg chief of Ui Mail, and O Ceallaigh ruler of eastern Ui Teigh; he names the Fortuatha Laighean, O Fiachra chief of Ui Eineachlais, and O Gaoithin chief of Siol Elaigh. These ruling families were quite unknown

at the end of the fourteenth century. Ui Mail was then in the possession of O'Toole; the eastern coastal district had long been occupied by Anglo-Norman settlements; many of these had been overrun by the O'Byrnes, but the King had constables in Newcastle MacKynegan and Wicklow castles; Arklow was owned by the Butlers, while Shillelagh barony at this time was either MacMurrough or O'Byrne territory. Almost all of what is now county Wicklow had been parcelled out into manors in early Anglo-Norman times, and as well as the early castles at Arklow, Castlekevin, Hollywood, etc., the sites of their moated houses can still be seen at Courtfoyle, Brittas, Talbotstown and several other places, such as Kilcommon, where Hugh Lawless was a vigorous defender of the English settlements in the fourteenth century; it was not till after his death, which occurred before 1374, that his lands were occupied by the O'Byrnes.³⁷

O hUidhrin must have gathered his information about the Irish families of pre-Norman Leinster both from manuscripts and from tradition. It is obvious that the value of his poem for historical purposes depends on the reliability of his sources, and it is difficult to say how much credit is to be given to some of his statements.

O Dubhagain's poem does not mention Fera Cualann. His knowledge of Leinster was slight, for he names two chiefs, MacGiollamocholmog and O Dunchadha, and places them in the section concerning Meath, as chiefs of Fine Gall. In the Leinster section he has O Cosgraigh ar chlár Cualann ('on the plain of Cualu'). O hUidhrin names MacGiollamocholmog as lord over Fera Cualann, and he continues "other kings obtained the territory of the plain of Cualu, O Cosgraigh of the triumphant band (do'n fhéin chosgraigh)". This suggests that he took O Dubhagain's clár Cualann as a reference to Fera Cualann, and added the statement about MacGiollamocholmog as a correction.

As to the name O Cosgraigh, there is nothing to show from what source it was taken. There was a family called Clann Cosgraigh, lords of Bantry (the barony between New Ross and Enniscorthy in Wexford), but no Leinster sept of O Cosgraigh is named either in the Annals or in the genealogies. The Annals record the killing of Coscrach son of Finsnechta in 815; he may have been a son of Finsnechta mac Cellaigh, chief of Ui Dunchadha and King of Leinster, who died in 808; but there is nothing to suggest that he gave his name to a sept. The same applies to the only other Coscrach I have traced, Coscrach mac Dunchadha, who seems to have been one of the Ui Mail. There is perhaps a possibility that the name O Cosgraigh is a mistake. Among the Ui Briuin Breifni there was a tribe called Ui Coscraigh, and we have an

³⁷ See J.R.S.A.I. lxvi (1936) 50.

³⁸ The prose version has O Cosgraigh tighearna Fear Cualann, but this appears to be a later summary.

³⁹ Rawl. B 502, 125 a 42.

instance of a confusion between the Ui Briuin Breifni and the Ui Briuin Cualann in the Annals of the Four Masters at the year 738.40

Clar Cualann seems to be only a variant for the name Cualu, and so would refer to more than the territory of MacGiollamocholmog which O hUidhrin calls Fera Cualann. Though the literal meaning of Fera Cualann is 'men of Cualu', when it is used as a place-name it seems, so far as one can judge, to mean a less extensive territory than Cualu. The district round Arklow was regarded as part of Cualu; the old name of the district was Ui Enechglais Cualann, the territory of the Ui Enechglais in Cualu.41 Cualann was not used to include any place so far to the south as Arklow.

What was the authority for O hUidhrin's statement that Fera Cualann was the territory ruled over by MacGiollamocholmog? It is possible that his source was some old manuscript which has disappeared. MacGiollamocholmog was, as I have said, the surname adopted by the ruling family of Ui Dun-There is a long passage dealing with the genealogy of the Ui Dunchadha in the late (perhaps sixteenth century) section at the end of the Book of Leinster, and in this the king of Ui Dunchadha is represented as being the ruler of Fera Cualann. "The seventeenth king of the Ui Dunchadha who assumed the kingship of Leinster was Muirchertach son of Gilla Ceille son of Gilla mocolmog. He gave prosperity to laity and clergy and rights to Maolruain and Michael" (i.e., he gave endowments to the Monastery of Tallaght). "An honoured son was born to Muirchertach through the blessing of Maolruain and Michael from whom great benefit to laity and church came to Fera Cualann. Severe was the hardship in which the Fera Cualann were until the advent of Muirchertach." Then follows a passage the exact meaning of which is not quite clear, but the general sense of it is that Muirchertach secured for the Fera Cualann freedom from payment of oppressive tribute to the foreigners of Ath Cliath.

Here the king of Ui Dunchadha appears as ruler of Fera Cualann, and the term is used to mean the territory inhabited by the people called Fera Cualann. Though the passage is only found in this late additional section of the Book of Leinster, 42 it could not have been composed in the sixteenth century; it seems more likely that it was copied from some old manuscript which has disappeared. The statement that one of the later chiefs of Ui Dunchadha put an end to oppressive exactions by the Norsemen of Dublin is probably quite historical.

When we turn to the Annals, we find that they contain four references to Fera Cualann. In 889 (recte 894) the Four Masters record the name

⁴⁰ Dubdothra: see J.R.S.A.I. lxiv (1934) 129.

⁴¹ P.R.I.A. 46 C p. 283, and see p. 274.

⁴² Ll. 389 a 12 ff. I have to thank Mrs. O'Sullivan of the staff of the Royal Irish Academy for kindly translating the passage for me. It has been printed in Gilbert's History of Dublin, vol. i, p. 407.

'Dubhcheann mac Cionaidh tighearna Fear Cualann'. O'Donovan takes it to be the entry of his death, but this is not in the text. This name appears in the genealogy of Ui Briuin Cualann: Cinaoth mac Donnghaile meic Cinaoth meic Mailsincill meic Duibhginn (cujus filius Cinneitigh mac Duibhginn agus na Fortuatha do marb he) meic Cinaetha meic Fergaile meic Aillella meic Cumuscaigh meic Maoncoisigh. The dates of the entries agree, for the same Annals say that Cindeitigh mac Cionaodha, chief Ui Briuin, was killed by the Fortuatha Laighin in 890 (recte 895). Neither of these entries appears in any of the other Annals.

A passage in the Fragmentary Annals preserved by MacFirbis⁴⁴ says that among the victors at the battle of Ballaghmoon in the year 908 were Ceallach and Lorcan, two kings of Fera Cualann. A poem accompanying this entry speaks of Lorcan of Liamhain. The Lorcan referred to was probably the chief of Ui Dunchadha who subsequently was king of Leinster and who died in 943; the metrical list of the Kings of Leinster calls him Lorcan Liamhna. Liamhain is Lyons, on the border of Co. Dublin and Co. Kildare; it was the principal residence of MacGiollamocholmog before the Anglo-Norman invasion. The reference to Lorcan as king of Fera Cualann may here be due to MacFirbis; he was not making an exact transcript of the old manuscript he was using, and it is possible that he inserted the name Fera Cualann in the prose passage by way of identification.

In 1035, according to the Annals of the Four Masters, Donnchad son of Dunlaing plundered Fera Cualann and carried off cattle and prisoners. Donnchad was chief of Ui Muiredaigh and also king of Leinster. No reason is given for the attack on Fera Cualann. There is no entry about this in any of the other Annals. Shortly before this, however, the son of Cellach mac Dunchadha, who was at the time chief of Ui Dunchadha, had killed Cathal, the chief of Ui Cellaigh Cualann, and his wife "the daughter of MacGillacaemgen" (that is, one of the Ui Briuin Cualann). This incident is recorded in the older Annals, 46 and was evidently of some importance. One might conjecture that Donnchad's raid followed as a consequence of this, in which case it would look as if Fera Cualann here meant the territory of Ui Dunchadha. But this is only surmise.

In 1141 Diarmaid mac Murchadha treacherously killed a number of the kings of north Leinster and blinded Muircertach mac Giollamocholmog. The Annals of the Four Masters call him lord of Fera Cualann. The Annals of Clonmacnoise, an English translation made in 1627 of an Irish work, call him "king of Kwalannmen". In the Annals of Tigernach, however, he is

⁴³ Ll. 389 a 34. These names are not in the earlier genealogy of the Ui Briuin Cualann at Ll. 316, b 30, but this is extremely short.

⁴⁴ Irish Arch. and Celt. Society, Dublin, 1860.

⁴⁵ Rawl. B 502, 85 a 28.

⁴⁶ AU 1035; A.Tig. (Rev. Celt. xvii (1896) 371).

called mac Gilla mocolmoc, without any territorial description.⁴⁷ This rather suggests that the reference to Fera Cualann was a subsequent addition, and it is possible that it got into the text of the later Annals on the authority of O hUidhrin's poem.

The name occurs in the tale called Togail Bruidne Da Derga, the saga which tells of the killing of Conaire Mor, king of Ireland. Among the bands of marauders who attack the hostel are 'the three Ruadchoin'; they are described as the three champions of the Fera Cualann of Leinster, the three Ruadchoin of Cualu. Another reading is the three champions of the Ui Briuin Cualann of Leinster, the three Ruadchoin of the Fera Cualann. The tale as we have it was compiled in the eleventh century, according to Thurneysen, whose conclusions are accepted by Dr. Knott. It therefore furnishes an early instance of the name Fera Cualann, and connects it with Ui Briuin Cualann (unless the latter name is to be regarded as an addition). The scene of the saga is placed in the mountain district of Cualu. The fact that the mythical figures called the three Ruadchoin are described as champions of the men of Cualu shows that the expression Fera Cualann was current at the time when the tale was compiled.

Finally we have the well known tradition that it was by Tighernmas that gold was first smelted in Ireland, in the Foithre of Airthir Life, and that Uchadan was the artificer who smelted it. The Annals of the Four Masters call Uchadan an artificer of the Fera Cualann. Their contemporary, Keating, also records the tradition, but calls Uchadan simply the artificer, without the addition of the tribe or place to which he belonged. The story comes from the prose text of the Leabhar Gabhala.⁴⁹ In this he is called Iuchadan the artificer; there is no mention of Fera Cualann. In the poetical summary, however, which comes near the end of the Leabhar Gabhala, we have the same tradition, and here Iuchadan is described as an artificer of Cualann. The poem is ascribed to the tenth century.⁵⁰ The gloss in the modernised version of the Leabhar Gabhala, written by O Cleirigh in 1631, uses the phrase Fera Cualann. The location of Uchadan in Cualu appears to belong to an early form of the tradition; Fera Cualann seems to be only a late variation, used in this context with the same meaning as Cualu.

This interesting passage about gold-working sounds like a piece of genuine tradition. The name Foithre Airthir Life evidently belongs to the original version. It means 'the forests or uncultivated lands of the eastern

⁴⁷ There is a gap in the Annals of Ulster at this period.

⁴⁸ Ed. Stokes, p. 37: ed. Knott, p. 12; see O'Rahilly, Early Irish History and Mythology, p. 118.

⁴⁹ Ll. 16 b 22.

⁵⁰ The poem beginning Éistet áes écna aibind: Macalister, Lebor Gabála Érenn, Ir. Texts Soc., vol. xli, pp. 252, 272-3, 323, 335. Professor Gerard Murphy kindly examined the various readings at my request; he says "read Iuchadán cerd do Chualainn; the reading Chualainn is proved by the consonance"."

part of the territory called Life', or as we might say, 'the wilds'. The tradition relates, therefore, to the mountain tract of south Dublin and Wicklow; this was the district which was called Cualu. But so far as the name Fera Cualann is concerned, the tradition throws no light on it.

These are all the references that I have been able to find to the name Fera Cualann. Several of them come from the Annals of the Four Masters and other works compiled in the seventeenth century. The entry in the Ui Dunlainge genealogy belongs certainly to the pre-Norman period, and the passage from the sixteenth century material at the end of the Book of Leinster sounds as if it was derived from some early source.

Some of these references suggest that before the Anglo-Norman invasion the name Fera Cualann was used as an alternative for Ui Briuin Cualann. It would appear that the chiefs of Ui Dunchadha, whose territory was much the same as the present barony of Newcastle, Co. Dublin, made the adjoining districts of Ui Briuin Cualann and Ui Ceallaigh Cualann subject to them after the decline of the power of the Norse kings of Dublin. The name Ui Dunchadha would not have been properly applied to this new territory, and so Fera Cualann may have come by extension to be used as the name of the whole, instead of referring only to Ui Briuin Cualann. This may explain why the territory of MacGiollamocholmog is called Fera Cualann by O hUidhrin.

Mills, in the paper I have already referred to, says that the territory of MacGiollamocholmog at the time of the Norman invasion is represented by "the part of the present county Dublin south of the Liffey, and the N.E. part of County Wicklow, including the littoral as far south as Newcastle" (i.e., Newcastle, Co. Wicklow). This means that it included Ui Briuin Cualann and Ui Ceallaigh Cualann, as well as what might be called the ancestral territory of Ui Dunchadha. Ui Briuin Cualann extended from Dublin in the direction of Wicklow as far as Newcastle; the Anglo-Normans called it Obrun. Ui Ceallaigh Cualann was the district round Tallaght, and the mountains to the south which the Anglo-Normans called Okelly.

The name Fera Cualann was apparently never used by the Anglo-Normans. In 1540, however, we find it, in the anglicised form Fercullen, as the name of a small area of some 30 square miles on the border of what was formerly Ui Briuin Cualann. How did the name come to be applied to this area?

Perhaps it is possible to suggest an answer. The O'Tooles were beginning to overrun and take possession of this district in the fourteenth century. It was not their ancient territory, and they would have had no particular name for it. They might have taken over the name used by the Anglo-Normans, and have called the district Obrun, or Ui Briuin. This was what usually happened in such circumstances; for instance, when the chiefs

of the O'Byrnes occupied Simonswood, they called it coill tSiomóin, whence the present name of Kiltimon. The O'Tooles, however, instead of making use of Obrun or any other existing name, called the district Fera Cualann, or Fercullen. This name, so far as one can judge, had never been in general use, even before the Norman invasion, and it seems to have become almost obsolete. Then we find it revived in the fourteenth century by the O'Tooles as the name for their newly acquired territory. This seems to me to imply that they thought of their occupation of Powerscourt as the first stage in the reconquest for themselves of the lands formerly held by MacGiollamocholmog.

It was at this period, when the Irish were recovering territories which had been taken over and settled by the Anglo-Normans, that the works of O Dubhagain and O hUidhrin were being written. Mr. Carney, in the Introduction to his edition of the Topographical Poems, points out that they must have relied not only on literary sources, but also on local traditions for their information. O hUidhrin certainly must have been in contact with the poets and historians of the ruling families of Leinster, among them, it may be assumed, those retained by O Tuathail. He may have found the name Fera Cualann in his manuscript sources, and have passed it on to the O Tuathail bards, or the name may have been preserved by the local historians in their oral traditions and have reached O hUidhrin from them. In any case I suggest that the name was revived by the learned men of the Gaelic resurgence and that to them it meant the territory which had been under the rule of MacGiollamocholmog.

O hUidhrin wrote his poem at the end of the fourteenth century. We have seen that he completely ignored the actual situation in this part of Leinster, and described the country as though the English settlement did not exist. His point of view would seem to be that for the historian these intrusions of foreigners were of no importance. The local bards and historians must have had the same outlook. To the local chiefs, on the other hand, everyday relations with these foreigners were of the first importance, whether they were hostile, or whether as in the case of Odo Otothil in 1355 the chief was paid to protect the English settlements. But the attitude of mind of the historians must have been reflected in the mental view which the chiefs had of the political situation; there would have been a certain amount of unreality in their conceptions of the strength and resources on which the English settlements were based.

So the O'Tooles could think of themselves as the rulers of Fera Cualann, which for them meant all the district lying south of Dublin. They never occupied any large part of this, but they could represent to themselves that the payment which they received from the Dublin government for the protection of the English settlements was a tribute received by them as chiefs from their subordinates, and the same would apply to payments levied from the settlers. We have a list of black rents paid in 1574 to the O'Byrnes

⁵¹ Dublin Institute for Advanced Studies, 1943, pp. ix-x.

and O'Tooles,52 and similar black rents must constantly have been paid

during the previous two centuries.

The name Fera Cualann would have been in use among the O'Tooles for at least 50 years before it first appears in the English documents. It must have reached the local English from the O'Tooles. To their English neighbours and to the Dublin government it would have meant only the lands which the O'Tooles occupied. In 1449 Richard Duke of York arrived in Ireland as King's Lieutenant, and the Dublin government thought that an opportunity had arisen to bring the frontier lands of south Co. Dublin back into English occupation. As a result the grant of Fercolyn was made to Mulso in 1450. What the name meant in this grant was the Powerscourt district with the valley of Glencree.

It may be objected that Tirlagh O'Toole himself describes the exact extent of the territory of Fercullen in his petition of 1540, and that what he calls Fercullen is not south county Dublin, but Powerscourt and the adjoining lands; does not this contradict the supposition that O'Toole thought of Fercullen as a general name for the old territory of MacGiollamocholmog? I think the apparent contradiction can be easily explained. was not drafted by O'Toole, but by officials of the Dublin government. is obvious on the face of it. The whole transaction was carried out by the officials. Henry VIII's advisers, both in England and Ireland, thought it desirable that Irish chiefs who were prepared to accept the Tudor suzerainty should hold their lands from the King like English landholders. They knew what the district was which O'Toole held, and they knew it by the name Fer-O'Toole wanted to have his claim to Powerscourt recognised. was the year 1540, not 1400. Even if he was still prepared to claim that the whole of south county Dublin was his territory, he knew that the facts of the situation at that time made such a claim quite impossible. that he had seen the mighty Earl of Kildare executed, with all his kindred, five years before. There was no reason why he should raise any objection when the officials who drafted the petition described Fercullen by the boundaries of the lands which were then in the occupation of himself and his followers.

The name Fercullen became obsolete soon after 1600. When used in the Fiants and other sixteenth century documents it means the district which is now called the parish of Powerscourt. I have shown that this was not what was meant by the name Fera Cualann in the Irish documents. What exactly it did mean is not easy to say, nor is it quite clear what authority O hUidhrin had for giving it as the name of the territory of MacGiollamocholmog. There seems, however, to be sufficient ground for saying that Fera Cualann was used as a place name in the pre-Norman period, and that it meant something different from the ancient Cualu. Perhaps some more light might be thrown on the whole matter by a detailed examination of all the references which are to be found to Cualu in the Annals and elsewhere, but that would be outside the scope of the present paper.

⁵² Carte Papers, vol. 55, fol. 13: see J. Kildare A.S. xi (1932) 150.

⁵³ See Curtis, Mediaeval Ireland, p. 364.

SOME MORE 18th CENTURY WALL-PAINTINGS IN IRELAND: PETER DE GREE, ETC.

By A. K. Longfield (Mrs. H. G. Leask), Fellow.

In the Centenary issue of this Journal¹ an account was given of some 18th and early 19th century wall-paintings in Ireland, but as information about all the then known work of Peter de Gree² could be found in the Georgian Society (vol. II) and in Georgian Mansions in Ireland (pp. 49-50) it was not treated in any detail. Within the last year, however, the existence of two further sets of examples has come to light. As one panel is particularly interesting and important it seems desirable to attempt this fuller record about de Gree, and also to append some notes on several other nearly contemporary decorations of a rather similar nature.

The life of Peter de Gree, the Flemish artist, whom David la Touche of Marlay met in Antwerp, is recounted in Strickland's Dictionary of Irish Artists, and need not all be repeated here. But it may be noted that de Gree's intention of acting on General Cunningham's invitation to come to Ireland, is stated in one of Sir Joshua Reynolds's letters³ to the Duke of Rutland (then Lord Lieutenant) whilst the approximate date of arrival in Dublin, with further good recommendations, is supplied in the following letter⁴ (14th Dec., 1785) also from Reynolds to the Duke: — "Mr. de Gree, the bearer of this, was very desirous of the honour of being introduced to your Grace; I therefore delayed my letter in order to give him this opportunity. Besides being a very ingenious artist in a variety of ways, he is a very excellent connoisseur, and was the means of my procuring some very excellent pictures at Antwerp. He was the agent about the pictures of Rubens and Vandyck. Consequently he will be able to give your Grace all his information about them." De Gree spent the few remaining years of his life in Ireland (he died in Jan., 1789)⁵ and during that time carried out a number of commissions

^{1 1949,} pp. 84-90.

² Ib., p. 87.

³ Rutland Papers, vol. 3 (app. 14th Report of Hist. MSS. Comm.) p. 240. 10th Sept., 1785. De Gree is described as an "excellent painter in chiaroscuro" and also as "a young man of very pleasing manners."

⁴ Ib., p. 268.

⁵ Dub. Chronicle, 15th Jan., 1789. "Died at his lodgings in Dame Street, Mr. de Gree, a native of Antwerp, and an inimitable painter in chiarascuro."

for large-scale mural and ceiling ornamentations—in emulation of those popular abroad—as well as painting some ordinary easel pictures.

His first order naturally came from la Touche, and the mural decoration of subjects related to music that he executed for the music room in the great banker's house, 52 St. Stephen's Green, is probably the most familiar (and most accessible) example of his work. But he also did five large and three smaller panels of the elements and various Gods, for another room, and these are not so well known because they were taken to Woodstock, Co. Wicklow, early in the 19th century. When Woodstock House was sold some years ago they were moved yet again, and now embellish a room and an upper hall in Mount Kennedy House, Co. Wicklow. As can be seen from Pl. XVIII the subjects are gracefully treated in the traditional classical manner of the period. It was an age that still "delighted in emblems, allegories and conceits''—hence Earth with overflowing cornucopia, scythe, etc., Air with swirling draperies and birds, Fire with a group about an anvil, Water distinguished by Neptune's trident, etc., etc. Of the panels of Gods, that devoted to Diana and illustrated in Pl. XVIII is perhaps the most attractive. It shows the Goddess enthroned on clouds amidst attendant cherubs, and with various attributes of the chase—a hound that she caresses, buskins on her legs, a bow at her feet, a quiver and some dead game. But it must be remembered that these panels were designed as part of a decorative scheme and that some of their ornamental effect has inevitably been lost by removal from the original surroundings.

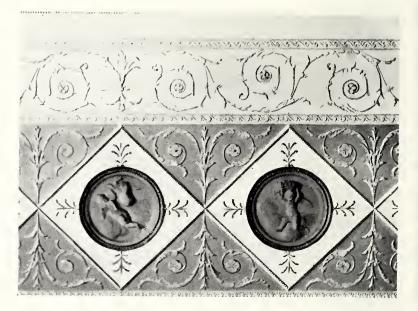
Fortunately at Curraghmore, Co. Waterford, fate has been kinder, and de Gree's work there is still fairly intact. Indeed his talent for chiaroscuro painting in imitation of bas-reliefs in the style of his master Geeraerts (so favourably commented on by Sir Joshua Reynolds) is well exemplified in the oval panels of the dining room—groups of the Gods of Olympus and semi-classical subjects—and by the delightful circular medallions of amorini on the ceiling of the principal drawing room (Pl. XIX). These latter are confined to the outer part of the decoration, the inner lunettes being in colour and traditionally assigned to Zucchi, the husband of Angelica Kauffman.

Hitherto these have been the only fully recorded specimens of large-scale interior ornamentation by de Gree. That work he did for Foster, the last Speaker of the Irish House of Commons, survives, however, was recently proved when the series of one large, and eight small panels—originally at Mount Oriel, and later moved to Collon House, Co. Louth—were taken down at the sale of Collon House a few years ago. They have since been expertly repaired and now adorn the walls of a room in Luttrellstown Castle, Co. Dublin. All the panels are "en grisaille" and apart from their intrinsic merits as specimens of effective chiaroscuro, there is the added interest of a

⁶ Built in 1771 and in the possession of the Representative Body of the Church of Ireland since 1870.



Photo—H. G. Leask. Mount Kennedy House, Co. Wicklow. Wall Paintings by de Gree, c. 1785. (Left) " Earth." (Right) " Diana."



Photo—H. G. Leask.

Two of de Gree's Medallions on ceiling at Curraghmore, Co. Waterford c. 1785-88.

signature and a date on the principal one, thus showing that it, at least, must have been executed in the last year of his life. The inscription "P. de Gree Ft. 1788" appears in bold lettering at the bottom of the large panel (72" x 74") depicting Hibernia with a harp, Mercury flying to her aid, children and cherubs playing with rolls of linen and bales of wool, ships in the distance, etc. (Pl. XX). It is reputed that this particular theme was at one time intended for the Irish Houses of Parliament—a tradition which may indeed be true, though no corroborative official evidence has so far been noted. Certainly the eight smaller panels—delightful as they are—have little apparent connection with the central one. They are all of the more usual, and then very popular classical type, with de Gree's characteristic groups of playing children, etc. (Pl. XXI), whereas the "Hibernia" piece is an original "Emblematical" composition. Indeed it is interesting to compare it with the monochrome "Emblematical Painting" representing Science and Agriculture which he was "directed to paint by the Committee of Agriculture, for their room of Meeting in Hawkin's Street''7 and on which he must have been engaged at much the same time. This now hangs in the Council Chamber of the Royal Dublin Society's premises at Ballsbridge, and is reproduced here by the Society's permission (Pl. XXI). According to their Proceedings, it was received on the 31st Jan., 1788, when the modest payment of twelve guineas was approved. Later it was decided that "a Silver Palette, with an Inscription expressive of the Society's sense of his Merit be presented to Mr. Peter de Grey."8

The second hitherto unrecorded set consists of eleven roundels of various sizes (all rather small), in plaster frames on the walls of the principal reception room of Mount Kennedy House, Co. Wicklow (Pl. XXII). As General Robert Cunningham is known to have purchased the property from the Kennedy's about 1769, and as there is an engraving showing the present house, dated 1787, in Milton's Views, the actual building must have been finished a little before that date. Anyway, when Cunningham 'invited' de Gree to Ireland, it is likely that he intended to employ him at Mount Kennedy and the probabality that this ornamentation was carried out in 1786 or 1787—in order to complete the general decorative scheme of the room⁹—is very strong. At the same time it must be noted that few of the roundels (as they appear at present) compare favourably with de Gree's work in Luttrellstown Castle, or indeed with that acquired from Woodstock and now also in Mount Kennedy House (see p. 134). This writer suggests, however, that some of the roundels (especially on the outer walls) must have suffered badly from damp at some time, and have been "touched up" in the course

⁷ Dub. Soc. Proc., 31 Jan., 1788, p. 57.

⁸ Ib., 5 June, 1788, p. 158.

⁹ This would have been the decoration seen by the Lord Lieutenant and alluded to in the quotation on p. 136.

of the last century or so. This would explain certain blurring of outlines and loss of original chiaroscuro effect.

The largest and best preserved roundel is that over the fireplace (Pl. XXIII). It is also the most important because the fact that it includes a neglected mortar and cannon balls—whilst all the others depict subjects like painting, sculpture, writing, oratory, music, astronomy, etc.—surely indicates that it supplies the clue to the symbolism of the theme; a theme moreover very suitable to a soldier turned country-gentleman¹⁰—the arts of peace instead of those of war.

De Gree is known to have worked very hard and to have ruined his health through the privations endured in order to send back money to his parents in Antwerp; but apart from the commissions noted above little else from his hand can be traced. Certainly fortune was scarcely kind to him. Thus, soon after he arrived in Ireland, the proposal that he should be made the Keeper of the projected Academy of Painting in Dublin fell through because the whole idea was abandoned when the Duke of Rutland ceased to be Lord Lieutenant. Later, having achieved a considerable reputation, he did not live long enough to enjoy success, and indeed died before he could complete an important commission for Dublin Castle.

Incidentally the history of this last order can be traced in newspaper references, and the following entry is particularly valuable since it supplies contemporary evidence about the work for Foster, the Speaker, and for General Cunningham, etc.: - "His Excellency the Lord Lieutenant being informed of the uncommon talents of Mr. de Grey, and the amazing effects of this artist's basso relievo paintings at the Earl of Tyrone's, the Speaker's, General Cunninghame's and Mr. Latouche's seats, 12 his Excellency has ordered four pictures to be painted in the same style by de Grey, in order to be placed over the doors in the new presence chamber at the Castle."13 a second entry under the same date, the subjects are specified: - "The basso relievo figures which de Grey is painting by order of his Excellency the Marquis of Buckingham, to be put over the doors of the new presence chamber, are the four seasons strikingly designed, and rendered so seemingly independent of the canvas, that to the nicest eye, they are the deception of relief, highly finished by the Sculptor's chisel, and starting forward with unexampled beauty and boldness."14 Finally a third reference (after his death) indicates the stage which had been reached: - "The death of Mr. de Gree, the basso relievo painter, threatens to deprive the new Presence Cham-

¹⁰ Arthur Young, Tour in Ireland (1776) Dub., 1780. Vol. I, pp. 122-132.

¹¹ A few pictures once at Carton, Bellevue and Powerscourt are mentioned in Strickland's Dictionary of Irish Artists.

¹² i.e. Curraghmore, Mount Oriel, Mount Kennedy House and 52 St. Stephen's Green.

¹³ Dub. Chron., 2 Dec., 1788, p. 743.

¹⁴ Ib., p. 744.



Photo-H. G. Leask.

"Hibernia," panel by de Gree. Signed and dated 1788. Now in Luttrellstown Castle, Co. Dublin.



One of de Gree's small panels at Luttrellstown Castle. 1788.



Photos—H. G. Leask.

Painting by de Gree in Royal Dublin Society. c. 1787-1788.

ber at the Castle of part of its intended ornaments. Of the four figures of the Seasons which he sketched out—he only finished Autumn."¹⁵ Unfortunately the entries do not relate what happened to these sketches. Presumably they were dispersed with the rest of his effects and may have been amongst the drawings eventually bought by the Dublin Society for five guineas, for the use of their School of Figure Drawing. But it is also possible that they went elsewhere and perhaps form part of some unidentified scheme of mural decoration. More work by de Gree may yet be found to survive. What has been described here can hardly represent the sum total of his activities in Ireland between Dec., 1785 and Jan., 1789.

Monochrome chiaroscuro painting for decorative purposes had of course been used in Ireland (as elsewhere in Europe) before de Gree's time too, but unfortunately no reliable information has been found about the artists responsible for two interesting surviving examples of earlier styles. Seafield Hall, Donabate, there are twelve more than life-size monochrome paintings on wooden panels depicting classical figures in niches (Pl. XXIV) and recalling (albeit remotely) some of the "trompe-l'-oeil" figures, also in niches, done by Veronese at the Villa Barboro, in Italy. Closer parallels, however, occur in various English mansions, notably where Sir James Thornhill was employed in the first few decades of the 18th century, e.g. at Stoke Edith House (now in ruins) and at Charborough Park, in Dorset, where a figure of Venus in a niche, dated 1718, is still to be seen. 17 As the inspiration for many of these classical figures was derived from prints, the most popular— Minerva, Venus, etc.)—were frequently repeated. The unknown (and possibly local) artist who worked at Seafield Hall certainly utilised such sources, and even if later "restorations" have not been altogether kind to his paintings, enough remains to illustrate what was considered fashionable at the period when the house was built—about 1720-30.

The second example can be seen in the dining room—originally the entrance hall—of Mount Congreve House, near Waterford. Here again the work, though somewhat indifferent artistically, is nevertheless interesting historically, as representing another attempt to emulate the grandiose manner of certain 18th century internal painter-decorators. Overpowering as it may appear now, it would have been regarded as merely suitably impressive for a large entrance hall of the time. Except for some narrow panels¹⁸ with foliage, etc., near the windows, little of the decoration, however, seems to have been done in situ, and the general scheme is rather confused. Thus some panels are in different scales, by different hands, and do not appear to have been planned in particular relation to the wall-spaces in question. In fact the effect of a painted room has here been achieved by pasting a col-

¹⁵ Ib., 29 Jan., 1789, p. 944.

¹⁶ Dub. Soc. Proc., 19 Nov., 1789, p. 10.

¹⁷ Information from Royal Comm. on Historical Monuments, England.

¹⁸ One panel includes a small portrait perhaps intended to represent the owner of the house.

lection of canvases, with painted imitation frames, directly on to the walls. According to family tradition the paintings were acquired abroad, probably on the "Grand Tour" and this explanation almost certainly applies to the copy of Guido's well known "Aurora" over the fireplace, and to the panels¹⁹ over the three doors—Niobe weeping for her children, etc.—for these differ appreciably from the others in scale and execution. But the larger and more dominating panels—Bacchus, Hercules, Venus, a Centaur, Pan, etc. (Pl. XXV)—correspond so well with Smith's description²⁰ of the hall at Whitfieldstown "painted in Chiara Oscuro with heathen deities" that it is tempting to believe that they may have been moved to Mount Congreve somewhat later in the century.

A certain amount of confusion has arisen from time to time over the convention whereby—especially in northern Europe—the term wall-painting has been employed to include, not only true fresco work (i.e. executed directly on the plaster surface) but also painted canvases affixed to walls or ceilings to fulfill a similar decorative purpose. Apart from various technical considerations, however, this use of a canvas base had several advantages. Such "wall-paintings" could be removed comparatively easily (e.g. instances noted in this article) and especially where the spaces to be embellished were neither large, nor numerous, the necessary canvases could be acquired, ready painted, and utilised without bringing the artist to the actual site. Thus at Abbeyleix House there are three relatively small panels with classical nymphs, executed "en grisaille" and in their oval plaster frames they provide a delightful finish to the scheme of plaster decoration in the room. That these three panels were not done in situ, but acquired in England, or on the Continent, is almost certain, and though this rather adds to the complexities of satisfactory identification, they are so much in the style of Cipriani, that a tentative attribution to his school may be suggested. Incidentally the fact that they were taken out of their plaster settings about 80 years ago (in order to be replaced by three family portraits that were never completed) and kept rolled up in a drawer, till recently found and re-inserted, indicates how easily they might originally have been transported.

In contrast to all the monochrome decoration described above, but also emulating Continental styles, are the four *coloured* lunettes executed by Jacob Ennis, about 1760, to adorn the cove of a ceiling in 14 Parnell (formerly Rutland) Square. Ennis was a young Irish painter who studied in

¹⁹ Evidently acquired in an unfinished state. When renovated in 1929 the blank parts were filled in with portions of painted pillars.

²⁰ Charles Smith, *History of Waterford*, Dub., 1746, p. 97. In his *History of Kerry*, Dub., 1756, p. 216, he refers to large figures painted in chiaroscuro by John Sonillard, a Frenchman, on the walls of the chapel in the house of the Earl of Kerry at Lixnaw. Unfortunately the house was in ruins by 1776 and no pictorial record exists of the work.



Photo—H. G. Leask.

Mount Kennedy House, Co. Wicklow. Painted Ronndels by de Gree, c. 1785-88.



Photo—H. G. Leask.

Mount Kennedy House, Co. Wicklow. Drawing Room Fireplace. Ronndel by de Gree, c. 1785-88.

PLATE XXIV.] [Facing p. 139



Photo—H. G. Leask.

Seafield Hall, Donabate. Painted Panels of Gods. Artist unknown.

Early 18th century.





Photo-H. C. Leask.

Mount Congreve House, Co. Waterford. Dining Room. Artist unknown. Early 18th century.



Photo—H. Cummins. 14, Parnell Square, Dublin. Coloured Lunettes of Mercury. Venus and Diana, by Jacob Ennis. About 1760.



Dublin under West and as he showed considerable ability was sent by Arthur Jones Neville to study in Italy for a few years, in 1754. On his return he did these lunettes—Bacchus, Diana, Venus and Mercury—for his patron, then owner of the house. Pl. XXVI gives some indication of how far he succeeded in absorbing the Continental tradition. Incidentally, no other examples from his hand have been traced, but as he was Master of the Dublin Society's School of Figure Drawing from 1763 till his death in 1770, it is unlikely that his duties left time for further large-scale commissions.

Finally I wish to acknowledge my indebtedness to the following owners of the houses and institutions concerned: — Major Congreve, Mr. Dawes, Mrs. Hull, Hon. Mrs. Brinsley Plunkett, Lord de Vesci, the Marchioness of Waterford, Royal Dublin Society, Gaelic League; also to Mrs. Baynes, Mr. Croft-Murray, Mr. E. Dufty, Mr. W. Friel, Mr. L. Hunter and Mrs. Kempster for general information, and to Mrs. H. Cummins and my husband for taking the photographs for the accompanying illustrations.

14th CENTURY MONASTIC ESTATES IN MEATH.

THE LLANTHONY CELLS OF DULEEK AND COLP.

By E. St. John Brooks, Member.

THE Irish cartularies of the two priories of Llanthony—Llanthony prima in Monmouthshire and Llanthony secunda near Gloucester—contain some documents of great interest and of a kind that is rare in Ireland, though frequent enough in England. These are the extents, that is descriptions and valuations, of the two manors, Duleek and Colp in Meath, the headquarters in Ireland of the two English priories. These extents give us a detailed picture of the buildings of a cell or grange belonging to a religious house at the end of the 14th century, and a minute description of the services rendered by the tenants of a monastic estate.

First, a few words about these cartularies and the two Llanthonys and their interests in Ireland. Llanthony prima was founded at the beginning of the 12th century for Augustinian canons by William, a knight of Hugh de Lacy's and Ernisius, chaplain to Queen Maud, who became its first prior. The site was later transferred to a place outside the city of Gloucester, and this became known as Llanthony secunda. Some monks of the original house stayed behind in Monmouthshire at Llanthony prima, which eventually, from being the mother house, became a cell of the daughter foundation.

The connexion of the two Llanthonys with Ireland came about from the grant by Henry II of the kingdom of Meath to Hugh de Lacy, descendant of the earlier Hugh; and this later Hugh, as lord of Meath, and his knights, men with such well-known Meath names as Petit, Dillon, Nugent, Cusack, Feipo, etc., endowed the English houses with Irish lands and churches, mostly in Meath, Louth and Westmeath. The particulars of these endowments were set down in writing, in the usual way, on pieces of parchment, known as charters; and, as was also usual, transcripts of these charters were entered in a manuscript book called a cartulary. These deeds and their transcripts are in Latin, written in a hand that needs some practice to read, owing to the unfamiliar appearance of certain of the letters, the frequent and puzzling contractions, and the use of many words not to be found in a Classical Latin dictionary. There are two such cartularies dealing with Ireland among the Llanthony muniments, those relating to the Irish possessions of Llanthony prima and Llanthony secunda respectively. With other Llanthony documents they are in the London Public Record Office;

and an edition of these two Irish cartularies will soon be published by the Irish Manuscripts Commission.

These cartularies are of great interest for local and for medieval family history, besides their value for ecclesiastical subjects, such as various aspects of procedure and administration, and for the light they throw in certain cases on episcopal successions. The particular aspect which I have selected for this paper is the extent, or description and valuation, of the two Meath manors already mentioned, Duleek and Colp, dated respectively 1381 and 1408. These extents, as already remarked, give an account of the buildings of the grange and of the tenants and their services. They are documents of which there are all too few Irish examples. Among the scanty survivors of the same nature that we have may be mentioned those in Alen's Register, which give extents in the year 1326 of the manors belonging to the archbishop of Dublin: St. Sepulchre's, Finglas, Swords, Tallaght, Rathcoole, Clondalkin, Ballymore and Shankill; the so-called Pipe Roll of Cloyne, which gives a good account of rents and services due to the bishop of Cloyne; and, for a lay holding, a full extent of the Tipperary manor of Lisronagh among the Ormond deeds, which was printed by the late Dr. Curtis in the Proceedings of the Royal Irish Academy. These extents describe the buildings, list the lands under cultivation, and detail the services of free tenants, cottars and betaghs (betagii) or serfs of Irish origin. The Llanthony extents follow the same lines, and are in considerable detail; they have, however, no mention of betaghs and scarcely any of men with Irish names.1

To turn now to the buildings at Duleek. One may ask the question, are there any remains of them in existence to-day? Combining the information in Archdall's Monasticon Hibernicum about religious foundations in Duleek with a description of the ruins there, supplied by a writer in our Journal for the year 1917 (vol. 46, pp. 202-5) it is possible to reach some tentative conclusions. But Archdall seems to be inaccurate in some particulars; and the article in the Journal is in some degree confusing. Briefly, there are extensive remains of a church in the centre of the town and fragmentary remains of an adjacent monastic building. The latter the paper in the Journal identifies with the old monastery, founded about 450 by St. Patrick, who placed over it St. Cianan (Kenan) who built this, said to be the first stone church in Ireland—Damhliag, whence the modern Duleek. Cianan died in 489 and, as we shall see, was buried in the church of St. Cianan's. The ruins of this stand to the north-west of the monastic buildings.

¹ There is a townland called Betaghstown in the parish of Colp; and the Duleek foundation had acquired a house and 60 acres of land in Lougher in the parish of Duleek from one William O'Kelly, described as their Irishman and nativus. A lawsuit concerning this is reported in Calendar Justiciary Rolls, 1305-7, pp. 173-4, and has been commented upon by H. G. Richardson (Irish Historical Studies, vol. i, No. 4, p. 390). This family of O'Kelly bestowed land in Lougher upon St. Mary's Abbey, Duleek, of which they are said to have been the founders in pre-Norman times, as I record below.

Then, we are told that in 1182 Hugh de Lacy, lord of Meath, founded another monastery of canons regular of St. Augustine, which stood to the south of the earlier foundation, in the grounds of the present Duleek House. These ruins must, I think, be those of the Llanthony establishment of Duleek, which owed its possessions in Meath to de Lacy and his knights, and which was an Augustinian foundation. I shall come in a moment to the description of the Llanthony buildings given in the Llanthony cartulary. The position of the site fits, for we are told that the Llanthony buildings were between the Nanny Water and the road, as the grounds of Duleek House are. But here some confusion enters, Archdall tells us, on the authority of Ware, that a priory of the Virgin Mary for regular canons was founded by one of the family of O'Kelly long before the coming of the English. He gives a list of the possessions of St. Mary's Abbey at the Dissolution, all, he says, 'part of the possessions of the abbey of Llanthony in Gloucester.' Here he is certainly in error, for that St. Mary's Abbey was distinct from the Llanthony cell of Duleek is shown by Mr. Newport White's edition of the Extents of Irish Monastic Possessions at the time of the Dissolution, published by the Irish Manuscripts Commission. Here the two foundations are entered as distinct from each other, and moreover the possessions recorded for St. Mary's Abbey consist of places which the Llanthony charters do not attribute to Llanthony.

The paper in the Journal is also somewhat confusing, for it proceeds to say that near the river Nanny in a neighbouring demesne are the ruins of St. Mary's Abbey, 'a castellated gateway, a portion of the east gable of the church with some of the tracery of a handsome Gothic window; there is also a small part of the domicile; the ruins are in a thick grove and so overrun as to be nearly impossible to find.' The position here indicated is the same as that mentioned for the Llanthony cell; and, in fact, I believe that these ruins are those of the Llanthony foundation, and not of St. Mary's Abbey. I think the remains of St. Mary's Abbey are those in the middle of the town, and that the 'rectory of the Blessed Virgin Mary of Duleek' (Fiants, No. 20 of Philip and Mary) was the parish church of the parish of Duleek Abbey. This, which lies some 3 or 4 miles south-east of Duleek, is distinct from the parish of Duleek, and most of it belonged to St. Mary's Abbey. The cartularies tell us that St. Cianan's was the parish church of Duleek, and where his church still stands, to the north-west, is probably the site also of his foundation.

There is no mention in Archdall or in the JOURNAL of the church or chapel of St. Michael. This was the chapel of the cell or grange of Duleek belonging to Llanthony. In the extent, to which I shall now turn, there is no mention of monastic buildings, but only of the farm structures, and it may be noticed that the two cells in Ireland belonging to the two Llanthonys denied on various occasions that they were technically priories and that their so-called priors were actually so. They maintained that they were merely granges or storehouses for food and goods gathered there for the

use of the two English houses, and so successfully resisted the claims of the archbishops of Armagh to include them in their periodical visitations. Dr. H. E. Salter, who was a leading authority in these matters, makes this point clear in his edition of the Newington Longeville charters. Newington in Buckinghamshire was a cell of Longeville in Normandy, just as Duleek and Colp in Ireland were cells of Llanthony in England. Dr. Salter says of Newington that there was never a priory there in the ordinary sense of the word—it was a place where the agent of the monks of Longeville lived. If he sometimes bore the title 'prior' he was almost as often known as 'proctor' or agent, and was a very different person from an ordinary prior. There is no mention in the Newington Longeville deeds of chapel, refectory, cloister or chapter house. Such was the case with Duleek and Colp also, though Duleek at any rate had a chapel, that dedicated to St. Michael mentioned above.

It is worth remarking that this collecting of food and goods from the Irish properties for transmission to England was a sore grievance to the bishop of Meath, who argued that these tithes and payments were made to Llanthony to his prejudice and to that of his church of Meath, and that instead of being sent overseas they ought rather to be applied to the use of the poor and sick and for other pious purposes. But the judges, appointed by the pope, upheld the claims of Llanthony.

As for the history of the Llanthony possessions in Duleek, the description in the extent which is the main subject of this paper is supplemented by the charters. These include a charter from Prince John granting to Llanthony the church of St. Cianan and charters from Walter de Lacy (son and heir of Hugh) granting the church of St. Cianan and also the level piece of land (planicia) which lies between the river Nanny and the road. There are also confirmations from the bishop of Meath of the church of St. Cianan and of the church of St. Michael as well as the court and buildings and this level piece of land. Elsewhere the church of St. Michael is said to stand in the court of the canons. It is probable that all these gifts were made by Hugh de Lacy the elder (d. 1186) and that Prince John's and Walter de Lacy's charters are in the nature of confirmations.

To come to the details of the buildings at Duleek, as given in the extent. In the house or grange of St. Michael of Duleek there was a chapel dedicated to St. Michael, and here a priest could celebrate even if all Ireland were under interdict. In the grange there was an old ruined hall, with a strawthatched kitchen and dairy, and a little stable adjoining roofed with tiles. There was also a long room with a closet adjoining, and a room called the knight's room (knyghtenchambre), both roofed with tiles. Under the long room was a cellar serving for a pantry for bread and ale, and under the knight's room a larder, and under the end of the long room a little stable for the horses of the proctor (procurator, the agent or representative in Ireland of the English house, as explained above). All these buildings were situated on the east side of the court. On the south of the court were a

bakery and brew-house with a loft for keeping the malt, in which bakery and brew-house were two furnaces, one a kiln and the other an oven for two and a half crannocks, roofed with tiles. On the same side, attached to the bakery and brew-house was a little granary for the ground corn and a trough for pouring malt, and a bake-house with a pigsty at the end, roofed with tiles. At the end of these houses on the west was a stone gate with a strawthatched room above, through which gate was the entry to the haggard, at which gate was a covered granary, under which was a little pigsty for young pigs and sows. On the same side of the granary was a long straw-thatched byre for oxen and cows. On the north was a sheep-pen and a long strawthatched stable and a stone gate called the high gate, with a room above and a room below for guests, under which was the gate-keeper's room, all roofed with tiles. Also, between the high gate and the kitchen was a stone wall, between which wall and another plaster wall, which extended from the high gate by the king's way up to the bridge, on the west and north of the chapel was a garden. On the east of the chapel, hall and knight's room was a large garden with a plaster wall, inclosed between the high road and the king's way and the rivulet there called the Nanny (Nanny Water). On the west of the court was a haggard, in which corn and hay were stacked, there being no building or other structure (absque aliquo aisiamento domorum), and in the time of Stephen de Bervynton a certain storehouse in the haggard was completely ruined and waste. At the end of the haggard was a house called the Kilnehous thatched with straw.

There was also a thatched dovecot at the end of the haggard not worth much for the past four years, and if sold worth 6s. 8d. In the meadow adjoining the court beyond the Nanny Water was a dovecot worth 6s. 8d. yearly. There was a water-mill at the end of the meadow, worth in average years 10s., and beyond this the proctors had their ground corn and malt. And the miller there took half the flour from the corn of strangers ground there.

There follows a list of the meadows and of the arable lands, with dimensions. This list contains a number of field names, of great interest etymologically and, if they could be identified to-day, of a rare value for local topography. In summary, the arable land is given as 233½ acres, half a rood, 2½ stangs, of which 52½ acres and 1 stang were to be ploughed. Their value was £6, 7d. An interesting topographical point is the mention of 'Bethlewescros' or, as it is elsewhere called, 'the cross of Bethleweston.' The place where the cross was situated was named from the family of Bethlew or Bedlew, now Bellew. A variant of the name was Bellewyston, and we read that John Bellewyston has in Bellewyston by the licence of the prior and convent a chapel within his manor, acquired by his ancestors for celebrating divine service.

Then comes a list of free rents (i.e., the rents of free tenants) with the names of the tenants. The rents of cottagers holding ad voluntatem (i.e. at the lord's will) follow. One example of such holdings may suffice. John

Mole holds a cottage with a curtilage next the cemetery of the church of St. Patrick on the north side of the church of St. Kenan, which was once two messuages with a croft, which Nicholas Steel and Hygyn Halpeny once held by the service of Ss. a year and afterwards Roger Poer held it and rendered yearly at the feasts of the Annunciation and of St. Michael 3s. 4d. by equal portions. He should give a hen at Christmas and should reap or find a man to reap with the lord, alongside the others in the autumn for his contribution, when the lord should have anything to reap. This is an illustration, of which there are many examples, of payment in kind and of boon work, that prescribed labour which the unfree tenant rendered in lieu of or part payment of rent. There is a list of ten others who pay similar rents and render the same services as John Mole. They have all English names, with the possible exception of Danudulfus Iris.

Rents of land 'ad voluntatem' follow. An example is the case of William Olyver who held 'ad voluntatem' 21 acres arable and pasture as a burgage holding ('in burgagio') towards Molafen, and rendered yearly at Christmas and the feast of St. John the Baptist, 8s. 9d. by equal portions, that is 5d. an acre. There are four of these.

The monks also held in the town of Duleek the parish church of St. Kenan (Cianan), the bishop and confessor, which church, we are told, he built to the honour and glory of God more than 800 years ago, and there the saint rests in the north part, in the chancel. This church the monks obtained and peacefully enjoyed without disturbance from a time to which the memory of man does not run, as the true parsons and rectors and they have one or two of their brethren proctors there to serve the church, and these and two parochial chaplains and four clergy daily celebrate divine service in a loud Their altarage of oblations of wax, wool, lambs, geese, pigs, garlic, onions, flax, hemp, dairy produce &c. is worth in average years £13 6s. 8d. There follow the 'portions' belonging to the church of Duleek from lands, with the amounts at which the 'portions' are sold each year. Dr. Salter has explained the term 'portions.' Where the tithes were the property of the monks but were leased from time to time at a varying figure, according as prices rose and fell, they were said to have a 'portion' in the church. The names of these places in most cases persist to-day as townlands in the parish of Duleek. In one of them, Balmaclythan, that is the present parish of Macetown, was a chapel whose burial rights belonged to Duleek's church of St. Cianan. That year there was a parochial chaplain there who took for his stipend for serving the chapel 13s. 4d. and a hood of English cloth worth 3s., and all the incomings belonging to the same, both oblations and mortuaries, besides the tithe of corn-sheafs and hay. The total value of the church of St. Cianan of Duleek, with its 'portions' was that year, £72 16s.

So ends the account of Duleek in this list of the possessions in Ireland of Llanthony by Gloucester. But a great deal more follows. The various other lands owned by Llanthony are listed and named, and their value to that house set forth. Many of these accounts contain particulars of buildings,

similar to the description for Duleek, but not so detailed. We read here of bakeries, brew-houses, dovecots, pigsties, &c., meadows, arable lands, free rents and rents of other tenants. In the townland of Lougher in Duleek, for instance, Adam Robyn, a nativus, that is a villein or unfree tenant of the lord (i.e., Llanthony) held next the manor a cottage, with a curtilage and croft and rendered yearly at Christmas and the nativity of St. John the Baptist 12d. by equal portions, and a hen at Christmas, and if he has more pigs or sows than seven, he should give for each 2d. and pay from whatever saleable brew he brews two gallons of beer called 'tollebole,' and he should reap with the lord, alongside the others, in the autumn, when the lord should have anything to reap, receiving 13d. a day. There were also there 14 other tenants of free condition, each of whom had a cottage with a curtilage and croft, and rendered in everything as Adam Robyn, a sentence which seems to imply that though Adam is described as the lord's 'nativus,' he was personally free, though economically servile.

And so one could go through this list, coming across as we turn over the folios all sorts of interesting particulars. In Drogheda, for instance, Llanthony secunda held the parish church of St. Mary, which it possessed from a time beyond memory, with the chapel of St. Nicholas, of the gift of the de Lacys. The monks had also a stall or shop (selda) under the tholsel in Drogheda on the Louth side; and a certain 'solarium' under St. Nicholas's chapel on the Meath side. Here the context shows that 'solarium,' which means an upper room, is a slip for 'celarium,' a cellar; and indeed the record goes on to say that they had another 'celarium' (correct for cellar this time) under this chapel on the east. It is necessary to be on the look-out for such occasional slips. In one passage we read of 'a grange by itself, two parochie by themselves, and one bake-house, brewhouse and a dovecot.' Here 'parochie' are not parish churches, as indeed we might guess from the context. Similar passages elsewhere show that 'parochie' is a slip for 'porcarie,' pigsties, a very different thing!

Mullingar, we read, had 39 hamlets pertaining to the church. There was a mansion house pertaining to the rectory on the south, but now waste. There was also a castle called Stonhous, pertaining to the glebe of the church, with two cottages annexed and the site of various other cottages between the cemetery on the east and the river. This was let for 12 years at a shilling a year, and not more because the tenant had newly made and built the roof which was dilapidated; formerly he used to pay 12s. a year. The monks there had their demesne and they could hold court and hundred every three weeks. To them belonged jurisdiction of the hundred, courts and wards, marriages, escheats and reliefs of the several tenants (escheats being a reversion of a holding to the lord when the tenant died without an heir, and relief the sum paid by an heir when succeeding to a holding). It will be seen that these features are the same as those obtaining in the feudal England of the time. Particulars were, however, unknown to the compiler because this jurisdiction had for a long time lapsed (perusitata).

In Rathconnell, Westmeath, was also the site of an ancient mansion belonging to the rectory, lying next the cemetery on the south, then totally waste and occupied by no one. At Killulagh, also in Westmeath, was the parish church given by the Nugents, but for 140 years and more the monks had not held it peacefully. The Nugents had also given them the church of Coulock, co. Dublin.

And so on. The valuation contains figures of lands let and rents, values of crops, and much information about pensions, procurations and synodals. It is a careful piece of work, drawn up by Brother Richard Chiriton, canon and proctor of Llanthony secunda in Ireland. At the end of his report he states complacently that wise and prudent proctors with good management and husbandry, and caring for the profit and advantage of the chief house of Llanthony, could send or convey to England in an average year four score pounds. No wonder the bishop of Meath was indignant at this drain on the economy of the county.

The extent of the possessions in Ireland of Llanthony prima is not quite so illuminating a document, but it too is full of interest for the church historian and for the local antiquary. It was drawn up somewhat later than that for Llanthony secunda, in 1408 by William Temset, canon and proctor in Ireland of the Monmouthshire house. It begins with an account of the manor of Colp, the headquarters of that house in Ireland. Here the tenures and services are typical, and are similar to those in the manor of Duleek. William Warrewyk, we are told, held at the lord's will a tenement with a croft on the north, rendering yearly at the feasts of All Saints and of Philip and James by equal portions 8s. And he should give yearly for a beast pasturing with the monks' beasts 16d., and for each pig pasturing with the monks' pigs, a hen. At Christmas he should give a cock and two hens. And he and his wife at Christmas time will eat together at noon with the proctor for the time being. And of each saleable beer he should give two measures (bolla) of beer, one for the church and one for the demesne, each measure containing two gallons, one of the best beer and the other of the second sort. There are four such tenants, each rendering the same services; one of them has the name of John the villein.

There follow the cottagers. John Elmeley held a cottage at the lord's will, rendering yearly at the feasts of All Saints and of Philip and James by equal portions a shilling. And he should find on any day during the autumn a fit man for mowing who would get 2d. a day and his food. And he should find a man daily for hoeing, and after the autumn for reaping the stubble (stobylle) for a day, and he should receive nothing except food and drink. And he should give for any pig pasturing upon the monks' demesne a hen, and towards Christmas he should give a cock and two hens of a year old. And he should give for a beast pasturing with the monks' beasts 16d. yearly. And if he should die holding the said land he should give his best animal as a heriot (a payment in kind made on the death of a tenant). And if he

should make beer for sale he should give two bollas in the same way as William Warrewyk. There are nine such cottagers, with similar services.

There follow accounts of the demesne, pasture and meadow lands. Then comes a list of the townlands belonging to Colp, with the names of the tenants, each holding from a half to two carucates of land. One, the abbot of Furness in Lancashire held Bewbek, two carucates. This place, now represented by Baybeg and Baymore in the parish of Colp, has an interesting history. It was given by the de Lacys to the abbey of Beaubec (de Bello Becco) in Normandy, and constituted a cell of that abbey with the same name, Beaubec, until it was transferred to Furness. It is curious to note how the French 'bec' has been transformed into the Irish 'beg,' and by false etymology the neighbouring townland called Baymore. There were also two carucates of burgage land in Colp.

The remainder of this extensive valuation consists of lists of the lands and churches held by Llanthony prima, with the names of the tenants, their holdings, the amount to be sown with corn and oats, and the amount of the tithe. There are few special points to be remarked here, though, of course, the whole is of great interest for church, local and family history. In Greater Ballybin, parish of Cookstown, co. Meath, John Busshun held a messuage with 60 acres of land, rendering yearly at Christmas and the nativity of St. John the Baptist by equal portions 40s., having formerly been used to render 54s. 2d. He should make suit of court every three weeks, and should give the best animal at his death for a heriot and relief, or half a mark of silver at the choice of the proctor, and amercement (misericordia, that is the amount charged for a default) should not exceed a shilling, unless for a grave forfeiture. And he should give for a customary payment two hens towards Christmas. There are eleven such tenants. In Drogheda there is a reference to the theloneum (place for collecting tolls) and to two cellars beneath St. Saviour's chapel.

This short account of the valuation of the possessions in Ireland of the two Llanthonys is, as I mentioned at the beginning, only one aspect of these cartularies. The information they contain is of the most varied kind, and of the greatest interest to the antiquary and historian. Besides the charters from the lords of the soil granting to Llanthony lands and churches, and the confirmations by bishops, archbishops and papal legates, there are papal bulls, royal letters and inspections of charters, documents relating to the division of the property between the two Llanthonys (for the bulk of this property had been given to Llanthony before the house had split into two, and had later to be equitably divided), lawsuits regarding tithes, ecclesiastical decisions on the liability of Llanthony to share in the election of rural deans for Trim and for Drogheda, and testamentary suits. The section chosen for this paper in illustration of the contents of the Llanthony cartularies shows in some detail how closely conditions in England were followed by the Anglo-Normans, laymen and ecclesiastics, in organizing their Irish

possessions. This has been recognized, and increasingly of late years, by Irish historians, who have shown how the pattern of administration and custom was paralleled in Ireland, whether we consider central or local administration, the relations of lord to tenant, land holdings, and methods of agriculture. The Llanthony cartularies make their contribution to this increasing body of evidence. My thanks are due to the Irish Manuscripts Commission for permission to make use of this material from the forthcoming edition of these cartularies.

SOME HITHERTO UNPUBLISHED PICTURES OF SIXTEENTH CENTURY IRISH PEOPLE, AND THE COSTUMES APPEARING IN THEM.

By H. F. McCLINTOCK, Fellow.

ROM the hitherto known pictures and descriptions of Irish people in the 16th century it appears that the usual dress of the ordinary Irish man outside the Pale and the English speaking coast towns, included four main garments, all known to be of great antiquity in Ireland though varying down the ages in many details of colour, cut and decoration. They were as follows:

- 1. The Mantle (Gaelic *Brat*). A large woollen sleeveless cloak or cape usually more or less semi-circular in shape which could be wrapped round the body, and if necessary also the head, of the wearer, varying in length but generally long enough to reach down to near the ankles.
- 2. The Saffron Shirt (Gaelic $L\acute{e}ine$). A large linen shirt or smock of varying length with wide hanging sleeves, usually dyed yellow, whence its English name.
- 3. A short jacket (Gaelic *Ionar*), with sleeves generally slit on the underside to allow the wide sleeves of the saffron shirt to hang through but capable of being fastened up by tapes or buttons at the wrist, or along their whole length if the *léine* was not worn.
- 4. Trews (Gaelic *Trius*). A sort of close fitting trousers like stage tights, generally reaching to the ankles with a band under the sole of the foot to hold them down, but sometimes ending above the knee like football shorts.

There is no evidence that kilts were ever worn in Ireland. (See O. I. & H. D., pp. 118-123).*

Such reliable pictures as we have fall into two groups, agreeing as to the garments worn but differing as to their shape, size and other details, which suggests that they were drawn in different parts of Ireland.

^{*}Any references to the writer's book "Old Irish and Highland Dress" are prefaced by the letters O.I. & H.D. and will refer to the 2nd edition published in 1950.

The first of these consists of a print in the Ashmolean Museum at Oxford headed "Drawn after the quicke" i.e. "drawn from life" (see O. I. & H. D. Ill. 18), and two coloured drawings by Lucas de Heere, a native of the Low Countries who lived in exile in England from 1567-1577 (see O. I. & H. D. Frontispiece and Ill. 19). In these pictures the léine or saffron shirt is long enough to reach to the ankles, though when worn it was usually shortened for ease in walking by drawing it up through the belt to the level of the knees, and is unpleated. The legs and feet are bare and there is no appearance of trews though very likely short trews were worn below the shirt. The jackets have a short pleated skirt about 9 or 10 inches long and are decorated either with elaborate patterns, probably cut out and sewn on, or with narrow bands of fringed braid round the waist, arms and elsewhere of a different colour to the jacket.

The other group consists of drawings from an illustrated book called "The Image of Ireland," by an Englishman named John Derricke who accompanied the Lord Deputy Sir Henry Sidney during some of his Irish campaigns (see O. I. & H. D. Ills. 24 and 25). These pictures all show the saffron shirt in a much shortened form hardly reaching half way from the hip to the knees, and elaborately pleated so as superficially to resemble a short Highland kilt. The jacket is also correspondingly shortened by having its pleated skirt reduced to little more than a frill, and it has no decoration beyond a few small slashes on the shoulders. With this style of dress it was the custom to wear long trews which, though not obvious in most of Derrick's drawings, are made quite clear in one given in the writer's book, "Old Irish and Highland Dress," Ill. 25, and page 44.

In both pictures Derricke shows a Chief in quite a different garb from the ordinary men of the country. He is wearing a fairly long jacket with a high collar buttoned up to his neck, of a chequered appearance due, it is believed, to being made of, or covered with, a patchwork of leather of various colours. He also has a tall head dress of similar material, and a large mantle, and is wearing trews. This is probably only a travelling dress. What he would have worn in everyday life we do not know.

Now, as to the parts of Ireland where these two different types of dress were worn. In the case of the first the clue is given by the words "estans au service du feu Roy Henry" in the title at the head of one of de Heere's drawings (O. I. & H. D. Ill. 19), which, as I have been kindly informed by the Assistant Director of the Bibliothèque Nationale in Paris, mean that the people in the picture were actual servants of the King and not merely his subjects. It can therefore be assumed that the Ashmolean print headed "Drawn after the quicke" (O. I. & H. D. Ill. 18) and the original pictures from which de Heere must have made his drawings, were drawn from the Irish recruits and their belongings who had been enlisted for Henry VIII's siege of Boulogne in 1544. These troops were recruited by Lord Ormond and commanded by his nephew Lord Power and it is therefore clear that

they must have been raised in Ormond's country, or at least in South West Leinster. On the other hand, Derricke definitely states that his pictures were drawn "of a people out of the Northe... sprong from Mack Swyne" i.e. the Mac Sweenys of Donegal, a district very remote from South West Leinster.

No doubt there were many other local fashions like these in other parts of Ireland, differing from each other in details but consisting in the main of the four garments enumerated above, the mantle, saffron shirt, jacket and trews.

So much for the pictures we already know. Since the publication in 1950 of the current edition of the writer's book "Old Irish and Highland Dress" a set of six black-and-white prints of Irish people has come to light in the "Cabinet des Estampes" attached to the Bibliothèque Nationale in Paris, in a collection of engravings of men and women in the national costumes of their native lands, recorded as the "Recueil Herbier. Ob. 14," and believed to have been published anonymously at Antwerp in about 1570. These pictures are given here in Ills. 1-6 by courtesy of the Bibliothèque Nationale, Cabinet des Estampes.

It is at once clear that the costumes in these pictures agree in all essential points with those in the first group mentioned above (see O. I. & H. D. Ills. 18 & 19) which are believed to be based on drawings made of the Irish troops raised for service in Henry VIII's forces in 1544; and have none of the features which distinguish the dresses in Derricke's pictures drawn in Donegal. The saffron shirts are identical in form and manner of wear in both sets, and trews again do not appear. The jackets also agree in general form with those in the first set though they differ considerably in details of cut and decoration both from each other and from those in the illustrations mentioned. Variety in these matters was evidently the fashion at the time.

The same identity appears in the size and shape of the swords and the pattern of their handles and the square, fringed ends of their scabbards. Also the long spear, and the daggers and gauntlets both carried on long lanyards round their owner's neck, and the two types of helmet, one rounded on top and with side pieces to cover the cheeks and ears, and the other with a brim and a tuft at its top.

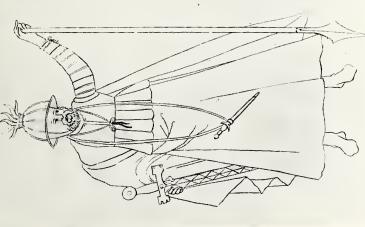
The pictures seem in places rather carelessly drawn and, not being coloured, it is not always easy to distinguish the folds of a mantle worn on the arm from those of the saffron shirt; so it may be as well to go through each in turn.

PLATE XXVII. "COSTUME OF THE MEN."

Mantle folded over right arm. Jacket without sleeves, like a waistcoat, and made of cloth with narrow stripes which go diagonally upwards towards the shoulder on one side and downwards on the other. Right-hand opening edged with fringed braid. Left opening, no edging visible. The sleeves

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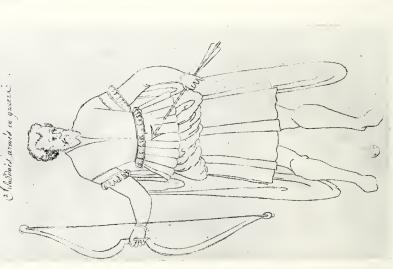




From the Recueil Herbier: (1) Costume of the Men. (2) Irish Men Armed

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From the Requeil Herbier: Irishmen armed in war. (I)

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appear to belong to some under jacket or vest worn below, and are made of a plain material and decorated with the usual fringed bands. Helmet, round topped, with side pieces as on the fourth man from the left in Ill. 18 in O. I. and H. D. Sword in scabbard carried under right arm. A drawn dagger in right hand. Gauntlet hanging from a long lanyard round the neck.

PLATE XXVII, 2.—" IRISH MEN ARMED IN WAR."

Saffron shirt worn at full length and almost reaching the ankles. This is the only picture we have showing it worn in this way. Mantle folded over right arm. Boots on the feet resembling those in Ill. III. Jacket possibly sleeveless and showing a sleeve which may belong to an undergarment decorated with narrow bands as on the right hand man in O. I. and H. D. Ill. 18. No band of braid round the waist as in all the other pictures. Helmet closely resembling that worn by the man in the centre of De Heere's picture (O. I. & H. D. Ill. 19). The tuft at its top looks as if it were made of pointed strips of cloth, but in De Heere's picture they are shorter and coloured like iron, so as to suggest that they are the ends of the flat tapering bands of iron of which the helmet appears to be made. Sword in scabbard in right hand, long lance or spear in the left. Small dagger in sheath hanging from a lanyard to about the level of the knees.

PLATE XXVIII, 1.—" IRISH MEN ARMED IN WAR."

Jacket of the usual pattern but with sleeves ending above the elbows and showing sleeves apparently belonging to some under garment made of undecorated material and reaching to the wrist. No mantle. High boots of smooth leather reaching up to the knees. Only weapon a bow, with an arrow in the left hand. No quiver.

PLATE XXVIII, 2.—" IRISH MEN ARMED IN WAR."

The figure in this picture is clearly copied from the left-hand man in the Ashmolean print (O.I. & D.H. Ill. No. 18) or from some common original. The only respects in which it materially differs are the omission of the embroidery on the jacket in the Ashmolean print and in facing the opposite way, with the sword held in the left hand instead of the right, as if it had been drawn from a reflection in a mirror.

The details are: mantle over right shoulder. Jacket with its left sleeve open for its full length to let the sleeve of the saffron shirt hang through, but omitting the tapes for fastening it up at the wrist as shown in the better drawn Ashmolean print. Right sleeve covered by the mantle hanging over the shoulder and probably open too, and if so the tight plain coloured sleeve which reaches the wrist must, as appears to be the case in Ills. I, II and III, belong to some other garment beneath. Left arm apparently bare and holding a sword. No scabbard and no other weapon. Legs and feet bare.

PLATE XXIX, 1.—" IRISH MUSICIAN."

Practically the same as the boy piper in De Heere's picture (O. I. & H. D. Ill. 19), except that although his face is smooth he has the figure of a man, and that the bands on the arms and body of the jacket in De Heere's picture are omitted.

PLATE XXIX, 2.—" IRISH WOMAN."

Again hardly distinguishable from the woman in De Heere's drawing except that De Heere's woman faces the other way and is more attractively drawn.

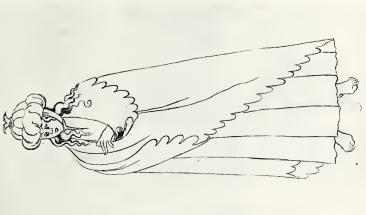
It only remains to consider what fresh information these pictures can give us, and any other matters that a study of them may suggest. To begin with, it seems clear that apart from the shortness or absence of the sleeves on the jackets in Ills. I to IV, and the possible existence of a sleeved garment worn, as it would have to be, under the saffron shirt, there is nothing new to be learnt from them except the high boots in Ills. II and III. Similar high boots were worn at the same time in the Scottish Highlands, as shown in the O. I. and H. D. Ill. I of the Highland volume, though looser in the uppers and made of hide with the hair left on instead of smooth leather as in the Irish picture.

It is curious that in all the pictures we have, the scabbards are shown as being carried in the hand instead of being fastened to a belt or slung by a strap over their owner's shoulder as, without this, when the sword was drawn for attack its scabbard would almost certainly have to be thrown away, as appears to have been done in the case of the fourth man from the right in O. I. and H. D. Ill. No. 18. It is equally curious that no shields appear. They were undoubtedly widely used in Ireland at the time, and in more than one form, see O. I. and H. D., page 61 and footnote, and pages 78 and 79.

One is struck by the profuse use of fringed braid to decorate the men's jackets and even the ends of their scabbards. Every jacket with the exception of that in Ill. II has a band of this material round the waist at the point where the upper part meets the short pleated skirt below, and it is often used as an ornament in bands round the sleeves. The question arises as to how this braid was made. The answer is, almost certainly by tabletweaving. Very little is yet known about early Irish textiles, but in the extensive excavations at Lagore crannog recently carried out by Dr. H. Hencken, M.R.I.A., F.S.A., whose report is printed in the Proceedings of the Royal Irish Academy Vol. 53, for 1950-51, it appears that among the fragments of textiles found were two small pieces of tablet-woven braid, one (No. 1672) plain and the other (No. 1194) fringed. The method by which they had been made is fully explained with illustrations on pages 214-217 of Dr. Hencken's report.*

^{*}For fuller information about this ancient craft, still widely practised among the natives of Arabia and the East, readers are referred to a book on the subject by Mabel W. Peach, published by Dryad Handicrafts, 42 St. Nicholas St., Leicester. There is no mention in this book of the making of fringes but the method is quite simple and is fully explained with illustrations in the report by Dr. Hencken as mentioned above.

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From the Recueil Herbier: (1) Irish Musician. (2) Irish woman.



It is impossible to say where the engraver of the Herbier pictures got the originals from which his prints were made. Apart from the striking case in Ill. IV they have no features which would necessarily connect them with the Ashmolean print. De Heere's water colours, as already stated, were made to illustrate two manuscript books about the British Islands, one now in the British Museum from which the frontispiece of O. I. & H. D. was taken, and the other in Ghent University library from which the picture in Ill. O. I. and H. D. No. 19 was obtained. De Heere undoubtedly adapted the woman and the piper in this picture either from the Herbier collection or from some common source and may have taken the pattern on the jacket of the man in the centre of this picture from one of those in the Ashmolean print. Where he got his pictures of the two women in the frontispiece of O. I. and H. D. and those in Ills. XX and XXI of the same book, we do not know.

Without further evidence the natural thing to suppose would be that, as suggested on page 35 of O. I. and H. D., the Ashmolean print was one of several English prints made from drawings of Henry VIII's recruits and other Irish people at about the same time, which were later used as models by other draughtsmen wishing to compile books or collections of pictures of the national dresses of the various European lands.

RICHARD BOYLE, IRONMASTER.

A FOOTNOTE TO IRISH ECONOMIC HISTORY.

By H. F. KEARNEY, Member.

T is some time since attention was first drawn to the remarkable increase of industrial activity in England during the late sixteenth and early seventeenth centuries.1 Of this 'premature' Industrial Revolution, the large-scale production of cast and wrought iron was a significant feature. Perhaps enough attention has been paid in England to the early iron industry but the not inconsiderable role of Ireland at this time has been neglected by historians. In Roscommon, Leitrim, King's County, Fermanagh and elsewhere 'planters' like Sir Charles Coote and Sir Adam Loftus found it profitable to invest large sums of money in ironworks.² They were merely following the example of English landowners who indulged in the direct exploitation of the mineral resources of their estates: Queen Elizabeth herself headed a list drawn up in 1573 of Sussex ironmasters.³ But the most spectacular of these early capitalists, so far as Ireland is concerned, was Sir Richard Boyle for whom we are fortunate enough to possess a day to day record of business activity. Boyle kept a diary from 1612 to 1643 and this makes possible a reconstruction of his business career, in a way which cannot be attempted for the rest of his contemporaries.4

At the beginning of the seventeenth century, English iron was much in demand; their cannon in particular were recognised as being of high quality and were bought in large quantities by the Spanish.⁵ Lionel Cranfield himself sold ordnance to both sides during the Dutch-Spanish war, before the

¹ cf. Economic History Review, Vol. v. pp. 3-24. J.U.Nef. The Progress of Technology and the Growth of Large Scale Industry in Great Britain 1540-1640.

² Boate's National History, printed in Ireland Tracts and Treatises 1613-1658. Vol. I. p. 107.

³ T. S. Ashton Iron and Steel in the Industrial Revolution. p. 5.

⁴ Printed in The Lismore Papers, first series. The second series also contains letters some of which relate to Boyle's iron activities. Boyle's diary is often the sole authority for many of the statements in this article, but however untrustworthy it may be in some respects there seems little reason why it should not be followed as a business record. The general picture which emerges is one which is confirmed by the State Papers and other sources, e.g. Strafford's Letters and Dispatches.

⁵ Ashton, p. 8.

truce in 1609.6 But though the demand existed, the high cost of timber (for charcoal) was checking expansion of production, even before the end of the sixteenth century. An obvious market therefore existed in England for Irish pig iron if it could be produced at competitive rates. Richard Boyle took advantage of the opportunity almost from the moment that he succeeded to the Irish estates of Sir Walter Raleigh in 1604. He was fortunate in that the area round Youghal possessed iron ore; plentiful cheap timber; water power for blast furnaces and forges; and easy access to the sea and hence to London and foreign markets. Cheap timber was especially important; charcoal was the most expensive item in the bill of an English iron foundry, whereas in Ireland by comparison its cost was quite low and this perhaps more than any other reason explains why, despite obvious transport and other difficulties, the production of iron in Ireland was a sound commercial proposition.

The mining of iron ore in Ireland was no part of the original plan. When in 1607 he is found consulting with his partners to open—or re-open⁸—an ironworks near Youghal, the plan of the syndicate was to import Devon ore from Dartmouth in exchange for Irish timber. At the same time skilled labour was to be brought to Ireland 'to make as good works as any in England'. A ready market was envisaged for iron in Ireland, which during the previous century had been dependent upon iron imported from abroad.⁹ There was also the probable market in England. In 1607 a Bristol merchant wrote to say that he would be willing to take up to 200 tons of Irish cast iron yearly provided he were given the monopoly of sale in the Severn Valley.¹⁰ Here were all the elements of a typical capitalist enterprise.

The first beginning of the syndicate at Kilmackoe represented a capital investment of £1,600.¹¹ Gradually their activities grew and Boyle's own share of responsibility increased. By 1615 he was producing iron ore at his mines at Ballyregan.¹² By 1618 there was a double furnace at Cappoquin and Boyle was able to promise 1,000 tons of sow iron to certain Bristol merchants at £5 a ton.¹³ The difficulty now was not to produce the iron but to sell it. In 1619 a man was sent to England to look for business, but the demand was disappointing. English ironmasters thought that 'Irish yron is

⁶ Sackville (Knole) MSS. (Historical Manuscripts Commission). Vol. 1. p. 64.

⁷ Nef. op. cit. p. 15.

⁸ In 1593 Sir Thomas Norris had invested in them. So also had Sir Walter Raleigh, and a letter from a Bristol merchant implies that the works already existed. *Lismore Papers* 2nd series I. p. 117.

⁹ Longfield A. Anglo-Irish Trade in the Sixteenth Century. p. 167.

¹⁰ L.P. 2nd Ser. I. p. 118.

¹¹ L.P. I. p. 10.

¹² L.P. I. p. 66.

¹³ L.P. I. p. 189.

nothing neare so good as ours'.¹⁴ Fortunately, however, a new market appeared in Holland, thanks to the long anticipated ending of the truce with Spain, in 1620. In 1619 Boyle actually offered £500 to the Crown in return for a licence to export iron ordnance and shot into the Low Countries. This does not seem to have been granted, but in 1622 he made a contract with two Dutch merchants to supply them with 400 tons of bar iron a year at £11/10/0 the ton.¹⁵ The ban on the export of English ordnance and bar iron may account in part for the increased demands of the Dutch.¹⁶ At any rate Boyle noted in his Diary in August, 1622, 'I have received advertisement from my cozen Roger Boyle that he arrived at Amsterdam with his ship laden with iron'.¹¹

By now Boyle had decided to produce more bar iron, which was more in demand as well as being more profitable than sow iron. ¹⁸ Bar iron sold at prices up to £13 a ton, whereas, sow iron brought in £5 a ton at the most. Further capital investment, however, was necessary as another process—the forge—was needed to produce bar iron, in addition to the furnace. By 1620 a new double furnace had been built at Cappoquin and there were forges at Kilmackoe and Lisfynneen. In 1625 two new furnaces were built at Mocollop. All these developments were encouraged first by rumour of war and then by war itself with Spain and then with France. In 1625 cannon was being cast at Cappoquin. ¹⁹ The 'twenties' therefore witnessed a boom period which saw the peak of Boyle's prosperity in ironmaking.

At this date he had clearly great confidence in the future. A new nail house and a slitting mill had been built. In 1629 he accepted a proposition to convert iron into steel, a scheme on which later he claimed to have spent £3,200.20 At this date also he proposed a partnership with Sir Charles Coote to establish an iron works in Leitrim.21 A seven year contract was signed with London ironmongers by which he agreed to supply 400 tons bar iron a year. But the period of boom could not last forever. The demand for ordnance and cannon balls disappeared after the making of peace with France and Spain in 1629 and 1630. In 1632 Boyle had to order his iron works to restrict production and 'to make but 200 or 300 tons of bar iron yearly from Xmas forward.' Signs of decline had already appeared the previous year when a contract to supply a London merchant with 1,000 tons of bar iron a year had fallen through. It is not surprising therefore to find Boyle

¹⁴ L.P. 2nd Ser. II. pp. 162, 244.

¹⁵ L.P. II. p. 80.

¹⁶ cf. Commons Debates for 1621. Ed. Notestein, Vol. III. p. 148: Vol. VII. p. 167.

¹⁷ L.P. II. p. 53.

¹⁸ L.P. 2nd Series. II. p. 211.

¹⁹ L.P. II. p. 179.

²⁰ L.P. II. p. 322.

²¹ L.P. II. p. 314.

withdrawing from the scheme which he had suggested originally to Coote. He gladly accepted Coote's offer to buy him out of the joint Leitrim enterprise for twice the sum that Boyle had invested. Boyle proved the better judge of economic conditions; later, Coote and his son found it difficult to pay the instalments of their debt as they fell due and were forced to ask for postponement on the grounds that to pay punctually would be 'very prejudicial to their present fortunes and estates.' At least one of Boyle's customers went bankrupt. It became difficult to find 'able and solvent 'men to buy bar iron at a price which would give a reasonable profit. The decline which took place may be difficult to estimate precisely but it is significant that in 1638 Boyle farmed out his ironworks for £650 a year, compared with the £4,000 he had been able to get for them in 1622.

That there was a general decline is borne out by the experience of Thomas Wentworth, who became Lord Deputy in 1633, and who for reasons of public policy as well as private profit, tried to keep an ironworks in production. The ironworks in question were run by Boyle's rivals, his former employees, who were producing ordnance under a royal monopoly and paying the King 40/- per ton for the privilege. In August, 1633, Wentworth wrote to Cottington in a pessimistic vein, mentioning that the chief difficulties were 'shortage of wood for coal and want of sale for a full quantity of 1,000 ton.' I am sure the sales is much to be feared' he continued, 'considering the Early of Cork who made not above 600 ton of Barr iron in a yeare, hath now nevertheless at least a dead stock of 1,000 tons of iron upon his handes.'22 In May of the next year he wrote that he expected to be six hundred pounds out of pocket 'and if I be once so fortunate as to recover myself, if any man take me a Merchant Adventurer againe, I am much mistaken.'23

In this letter he mentions the rising cost of timber. If this was so, then Ireland's main advantage in time of peace was disappearing and it was small wonder that later in 1634 Portland, the English Lord Treasurer wrote to Wentworth saying that he could obtain supplies of ordnance cheaper than the Irish iron monopolists could supply. In 1635 it was mentioned by a petitioner that 'Swedish ordnance had so beaten down the market beyond seas' that he no longer makes ordnance for exportation. The boom period for Boyle and for others was in fact over. He had made great profits, but for the time being at least, this particular source of his income brought in less and less.

It is perhaps not labouring an obvious point to explain that Boyle's ironworks were essentially capitalistic enterprises, similar to those of the Weald, the Forest of Dean and other parts of England. They were 'capitalistic not only in the sense that the worker dependent upon an employer for their raw material and market but also in that they are brought together in

²² Wentworth. Woodhouse Papers No. 3, pp. 9-12,

²³ Ibid. p. 92.

a 'works', are paid wages and perform their duties under conditions not dissimilar to those of almost any large industry of modern times.'24

The best general description of such ironworks in Ireland is provided by Gerard Boate in chapter XVII of his Natural History. He describes for example a blast furnace, with its two vast bellows, driven 'by the means of a great wheel, which being driven about by a little brook or water course, maketh them rise and fall by turns.' However, too much should not be made of the initial capital required to build a blast furnace: only £200 was needed to build Cappoquin. The real burden lay in cost of labour and raw materials. Boate hints at the huge consumption of charcoal in a furnace which was kept burning for months at a time. He also gives a list of the kind of workmen required: woodcutters, sawyers, carpenters, smiths, masons, and bellowmakers, water course keepers, basket-makers ('to make baskets for to carry the oar and other materials'), boat men, miners, carriers, colliers ('who make the charcoal), corders, fillers, furnacemen, refiners, hammerers, besides unskilled labour, 'who having no particular task must help to put their hand to everything.'25

Even by modern standards, such an ironworks was a considerable capital investment. The cost of the forge at Kilmackoe was over £1,000.26 But Boyle began of course in a comparatively modest way. In 1608 at the very beginning of the enterprise, a refiner, a hammerman, 8-10 colliers and 12-14 woodcutters were brought over to Ireland. By 1625 the number of Boyle's employees must have been considerably more than this, though no precise figures are available. It is true that some of Boyle's sub-tenants provided labour services at the ironworks in lieu of rent, but much of the labour seems to have been full time and skilled, and paid comparatively high wages. 1620, Boyle mentions that £37 was to be 'weekly delivered' to pay the miners and woodcutters and in the same year £60 was sent 'for paying the workmen of the ironworks.' These figures suggest that Boate was exaggerating when he estimated that Boyle's fellow capitalist, Coote, employed full time about 2,500 men at his three iron works. It is clear that wages were paid and that the bill for labour was no light one but how many workmen there were and how much they were paid weekly, there is no means of telling. In a scheme for a state iron monopoly, two rivals of Boyle offered to employ 800 men at In 1627 one nailhouse alone of Boyle's employed 32 men.²⁷ 8d. a day.

The capital required was not the only difficulty. The ironworks had also to be managed and in spite of the profit he made, Boyle never seems to have reached a permanent satisfactory arrangement in this respect. From 1612 to 1619 his main partner was Ball, an Englishman, living in London, who ran the works through an agent and paid Boyle a farm for his share of

²⁴ Ashton. p. 1.

²⁵ Ireland: Tracts and Treatises. Vol. I. p. 108.

²⁶ L.P. II. p. 60.

²⁷ Cal. S.P. Ire. 1625-32, p. 243.

£400 a year. From this one may conclude the profits were small at this stage. Later on, however, Boyle leased the double furnace which was built at Cappoquin for £500 a year.

In 1619 this arrangement came to an end and Boyle for some months was forced to run the ironworks himself. It is during this period that details concerning the internal working of the ironworks appear in the Diary. Soon, however, Boyle appointed a manager who was to be paid £2/15/0 for every ton of cast iron produced, Boyle supplying the ore and the charcoal. This arrangement did not last long and in 1622 he leased all his ironworks, woods and mines outright for £4,000 a year. This rent could be paid in bar iron, if the farmers so wished, which proves that there was no difficulty in disposing of it at this date. In 1625 Boyle made an agreement with a new partnership of farmers who were to supply £1,200 sow iron to his forges. There was no one settled state of affairs therefore and until the decline in trade during the thirties, Boyle seems to have taken most of the responsibility for the production and sale of iron upon himself.

But if the difficulties were great, so were the profits. In 1626 two of Boyle's employees, Blacknall and Wright, were willing to pay Charles I £3,600 a year for the monopoly of iron ordnance. A few years before Boyle had been involved in a lawsuit concerning the ownership of certain of his ironworks. The Privy Council decided that he should pay over £2,000 by way of compensation, but Boyle continued to prosper. It was the sale of iron in 1629 that enabled Boyle to lend Charles I £15,000 at short notice. In 1632 the dowry of his daughter Margaret consisted of £3,500 and 500 In 1633 Thomas Wentworth the Lord Deputy thought it tons bar iron. worthwhile to invest his own money in the iron ordnance scheme of Blacknall and Wright; by this date, however, the tide had turned and Wentworth was £600 out of pocket as a result. The 'boom' period was now over. Boate may have exaggerated when he said that Boyle 'profited above one hundred thousand pounds clear gain by his said ironworks,' but there is no doubt that they were responsible for a large proportion of his income. Pipestaves, pilchards and a rich wife—all played their part in Boyle's financial success, but so also did iron.

To say that the hey day of iron production in Ireland coincided roughly with the career of Richard Boyle is perhaps to overstate the case. The cessation of Boyle's diary in 1643, coupled with the absence of many references to iron in the State Papers after the outbreak of the 1641 rebellion could be misleading. One would expect that the years of war would encourage iron production in those centres which could carry on and both Boate and Petty imply that there was a good deal of activity. During the Restoration period, however, the picture seems to have changed. Iron manufacture still took place in Ireland but the raw material was now supplied from abroad. If the figures for the years 1663-528 are a safe guide, four hundred odd tons of bar

²⁸ Cal. S.P. Ire. 1663-5. pp. 696-8.

iron were imported from England and abroad, together with nearly a thousand tons of iron ore. These facts are compatible with the complaint of 1673 when it was stated that there were no ironworks in Ireland except at Mountrath²⁹ and near the town of Wexford, if by 'ironworks' is meant the full productive process, including mining, blast furnace and forges. Irish iron, like its English counterpart,³⁰ could not compete in the late seventeenth century with the cheap iron of Sweden³¹ and later Russia. The native production of pig and bar iron was no longer the economic proposition which it had been in the days of Boyle.

²⁹ O'Brien G. Economic History of Ireland in the Seventeenth century. p. 149.

³⁰ Ashton. p. 13.

³¹ Cal. S.P. Ire. 1663-5. p. 540.

FISHERIES OF THE RIVER LIFFEY.

Notes on the Corporation Fishery up to the Dissolution of the Monasteries.

By A. E. J. Went, Member.

THE fisheries of the River Liffey have a long recorded history more or less contemporaneous with that of the city of Dublin. The early Scandinavian invaders were, no doubt, familiar with the salmon and other fish which entered the river. Even the most famous salmon weir in the history of Ireland, that of Clontarf, which featured in the famous battle in 1014, must have relied mainly on salmon from the Liffey for its catches.

Thomas Taylor in a book of reference accompanying the Dublin section of the *Down Survey* states that the Liffey yields much fresh fish "as salmons and the like "² and writing of his visit to Ireland in 1681, Thomas Dineley stated that the Liffey served the city of Dublin with plenty of salmon, trout and eels.³ In Thomas Monk's account of County Kildare, prepared in 1682 at the request of Sir William Petty for a proposed statistical survey of Ireland to illustrate the Down Survey, the Liffey is said to have afforded "white flesh Troot but a Salmon alwayes in season." Despite these comments it is clear that the Liffey could only supply a small proportion of the salmon requirements of Dublin in the eighteenth century, although several centuries earlier it appears that the Liffey could and did support a very intense fishery. The protracted law suits which are on record show, however, that great value was placed on the fisheries of the Liffey in medieval times. Eels were, however, never plentiful and there is not a single record of a fishery for them.

¹ The War of the Gaedhil with the Gaill, ed. J. H. Todd, London, 1867, pp. 192-3, 257.

² Civil Survey, viii, 289.

^{3 &}quot;Extracts from the Journal of Thomas Dinely Esq., giving some account of his visit to Ireland in the reign of Charles II". Ed. E. P. Shirley and others. R.S.A.I.Jn. viii. 289.

^{4 &}quot;A descriptive account of the County of Kildare in 1682 by Thomas Monk", Kildare Arch. Soc. Jn. vi. 341.

⁵ J. Rutty in An essay towards a natural history of the county of Dublin (Dublin, 1772, i. 356) states, 'The salmon. It is found in the Liffey although our markets are supplied from the Boyne'.

In order to follow closely and systematically the history of the fisheries of the Liffey it will be necessary to consider the river by sections. Without unduly anticipating the account which is to follow, the portion of the Liffey, up to the site of the present Islandbridge weir at the head of the tideway, may be treated as a compact fishery. This fishery may be called the Corporation fishery, since it is now in possession of the Dublin Corporation, who lease it from time to time.

THE HISTORY OF THE CORPORATION FISHERY.

Shortly after the establishment of the Normans in Dublin many charitable gifts of fisheries and tithes were made to religious houses by various people. In a lawsuit in the year 1364, about which it will be necessary to say more at a later stage, an old charter "injured by age but still legible" was produced, showing that on 14th May 1180 Lawrence O'Toole, Archbishop of Dublin, whose seal was affixed to the charter, had confirmed to the regular canons of St. Augustine in the Church of Holy Trinity certain possessions, which included a fishery near the site of the church and the tithes of salmon and all other fish in the watercourse of the River Liffey.6 The church of Holy Trinity regarded this possession as a valuable one and from time to time, as will be shown later, had to resort to the Courts to enforce its rights. Apparently the original grant of these possessions had been made to Holy Trinity two years earlier.7

Henry II shortly after the Anglo-Norman invasion enfeoffed Hugh Tyrrell the elder with "lands of Kilmahallock with appurtenances, together with the moiety of the river Liffey, as far as the water course near the gallows " and subsequently Hugh Tyrrel made gifts of land and a " moiety of the river Liffey, as far as the water course near the gallows " to the Hospital of St. John of Jerusalem at Kilmainham.⁸ This gallows was on the river bank close to the Parkgate Street entrance to Phoenix Park. The abbey of St. Thomas, Dublin, later got the tithes of this water.9

The Crown had by the year 1185 taken possession of the fisheries of the River Liffey in its lower reaches for in that year Prince John, as Lord of Ireland, granted to the abbey of St. Mary, the right of having 'boat on the water on Avon Liffy, to fish with equal privileges as his own boat.'10 Like their confreres of Holy Trinity, the monks of St. Mary's regarded these rights as extremely valuable and they were also prepared to challenge in the Courts any person interfering with them. Another abbey, that of St. Thomas,

⁶ H. J. Lawlor, "A calendar of the Liber Niger and Liber Albus of Christ Church, Dublin." R.I.A. Proc. 27. C. No. 1.

⁷ John D'alton, The history of the County of Dublin, 1838, p. 668.

⁸ D'alton, op. cit. p. 606.

⁹ Reg. St. Thomas, Dublin, pp. 383, 392.

¹⁰ Chart. St. Mary, i. 85. See also M. Archdall Monasticum Hibernicum, 1786, p. 135 and D'alton, op. cit., p. 668.

was also granted by John in 1197 the right of having a boat on the river together with the "tithes of all the salmon brought into his kitchen in the castle of Dublin."

On 29 October 1200 John presented to the abbey of St. Mary's a charter of confirmation of its possessions including, inter alia, "their boat on the Anna Liffey with liberty to fish as freely as the King's boat, to hold in frankalmoign etc."12 Just over a week later John confirmed by way of charter, all his previous grants to the citizens of Dublin, and in addition "conceded to them one-half of the water of the Liffey for fishing." John's grant to the city was succeeded on 21 April 1201 by a grant, in reality confirmation as far as the fishery was concerned, of "a boat in the Dublin water, and the tenth of the salmon due to the King's kitchen in the castle of Dublin to the church of St. Thomas the Martyr for their sustenance."14 The Archbishop of Dublin and other religious and private persons also had such limited fishing rights, evidence of which will be introduced in the appropriate sequence. Before the restriction of the Liffey within restraining walls or embankments as it is to-day there must have been many suitable netting stations where salmon could be captured on the flat shore of the river.

Towards the end of John's reign the citizens of Dublin obtained the King's half of the fishing of the Liffey and on 1 February 1215 a mandate was issued to Henry, Archbishop of Dublin, to take fines from the burgesses of 200 marks or more that "they may hold their vill in fee farm by the King's charter, with the King's portion of the river, saving the grants of fisheries by the King and the sites of mills." Later the same year on July 3 John granted in perpetuity certain possessions which were to be held in fee farm "with the citizens' part of the water of Avenlith together with his part of the same water, with reservations of the boats others have of ancient tenure" and which the King had previously given in frankalmoign. Two days later the King notified the Lord Deputy that Dublin had made the necessary fine for the fishery etc. Thus, with certain reservations, most of the tidal water fisheries of the Liffey came into the hands of the citizens of Dublin, a fishery which they were to hold for over seven hundred years.

¹¹ Archdall, op. cit. p. 181. The charter was dated 18 October, 1197. See also Reg. St. Thomas, Dublin, p. 281.

¹² Cal. doc. Ire. 1171-1251, No. 127, p. 20. Chart. St. Mary's i. 89.

¹³ Cal. anc. rec. Dublin, i. 6; Cal. doc. Ire. 1171-1251, p. 23 and Hist. & mun. doc. Ire., p. 60.

¹⁴ Cal. anc. rec. Dublin, i. 166. This charter was confirmed by John's grandson at a later date. (See Cal. doc. Ire. 1285-92, p. 381.)

¹⁵ Cal. doc. Ire. 1171-1251, No. 529. p. 83.

¹⁶ Cal. anc. rec. Dublin, i. 6. See also Cal. doc. Ire. 1171-1251, pp. 89-90 and Hist. & mun. doc. Ire., p. 63.

¹⁷ Cal. doc. Ire. 1171-1251, pp. 88-9, 93.

There is no evidence as to how the citizens operated the fishery at this time, but it is likely that it was leased or disposed of to some suitable person.

Shortly after acquisition of the fishery by the city the King directed the Lord Deputy to "inquire by English and Ostman of Dublin whether the Prior and Convent of the Holy Trinity in the city are entitled of ancient right to have a boat on the Anna Liffey; whether they were despoiled thereof by Hamon de Valoignes; and if so, to permit them to have the boat." Apparently the Prior was restored to his property, for there is evidence later that he did retain a boat on the river.

Geoffrey de Marisco, the Lord Deputy, on 10 November 1218 was directed that "taking with him Knights, free tenants, and others of Ireland, he cause to be rectified the course of the Avenlith so that ships with merchandise may have ingress to and egress from the vill of Dublin and fish may ascend to that vill as they were wont to do and may descend from it." Nothing was done about this obstruction then for further complaints were made two years later about the same matter.

It will be remembered that in his charter of 1215 to the city (see page 165) John made reservations regarding certain limited fishing rights which "others have of ancient tenure," that is to say, the rights to have fishing boats held by various persons prior to the grant of the main interest in the fishery to the city of Dublin. In 1219 (September 24) the Lord Deputy was directed to "cause John, son of Dermot, to have a boat for fishing in the river of Dublin, as he and his ancestors were wont and were entitled to have." This man was one of the few private persons having such rights on the river and his claim was apparently well established. How he or his ancestors came to obtain these rights originally is not apparent.

A renewal of complaints about obstructions in the Liffey was made on 5 October 1220. The King writing to the Lord Deputy stated

The good men of the King's city of Dublin have informed the King that the city was always wont to have the Anna Liffey (Avenlith) in such a condition that any kind of victuals could be conveyed in boats up and down to the city and the citizens and others always had a fishery on that river. The prior and friars of Kilmainham have. however, lately made a pool there, whereby the city and citizens are much damnified; their fishery is totally destroyed because the pool prevents the fish from ascending; and their boats can no longer pass up and down as they used to do. Mandate to the justiciary that, on view to be made by good men of the venue of Dublin other than the citizens, he cause the river to be so enlarged and the pool so rectified that ships and boats with every kind of victuals, with stones and wood, may have free passage up and down the river, and that fish may have free approach to the fisheries of the King and his subjects and free return therefrom.²¹

¹⁸ Cal. doc. Ire. 1171-1251, No. 641, p. 99. This was dated 8 August, 1215.

¹⁹ Cal. doc. Ire. 1171-1251. No. 854, p. 127.

²⁰ Cal. doc. Ire. 1171-1251, p. 135.

²¹ Cal. doc. Ire. 1171-1251, p. 149.

The remains of this offending dam may well have been, as Gilbert suggests, the peculiar structure 16 feet thick and 3 feet below the bed of the river, found when the foundations of Carlisle (O'Connell) Bridge in Dublin were being constructed in 1791. 22 Certainly the dam must have been somewhere in this region as it obstructed boats laden with produce at a time when the only quays in Dublin were situated very much further upstream. This dispute between the Hospital and the city of Dublin went on for some years for on 27 February 1221, 8 August 1223 and again in May 1225 similar mandates were issued to the Lord Deputies. 23 There appears to be no record of what actually happened but certainly the offending dam was removed or at least altered in such a way as to permit fish and ships to move up and down stream.

In accordance with feudal practice a confirmation of John's charter to the city including the right to the fisheries was made by the new monarch (Henry III) in 1229²⁴ and in the following year the Archbishop of Dublin was confirmed in the possessions which John, when Lord of Ireland, had granted to his See. These possessions included, *inter alia*, the right to have a boat for fishing salmon on the River Liffey.''²⁵

"John, son of Dermot" whose rights to have a boat was the subject of a direction from the King on 24 September, 1219, had some time later granted his limited fishing rights on the Liffey to the Priory of All-Hallowes, Dublin, which possessions were confirmed to the Priory by his son John in 1240 in return for the gift of a rose in the church of All-Hallowes²⁶ every St. John the Baptist's day. Thus one of the last limited rights of fishing owned by private persons was extinguished.

Another dispute about the fishing occurred in 1243 with St. Mary's Abbey and the city the protagonists. Apparently the city had refused to allow the abbey to have a boat for fishing on the river and the King directed in May 1243 that the abbey should be allowed "to enjoy the liberties which they hitherto possessed." Judgment given was as follows:—

Richard Strongbow in former times enfeoffed prior and house with all the land of Kilmainham, and that Hughes Tirel senior, granted to them Kylmehanok, which he received from Henry II; that the latter King ratified these grants.²⁸

In 1261 the city and the Hospitallers of Kilmainham were again in dispute about the fisheries of the Liffey. Details of this dispute are given in

²² Hist. & mun. doc. Ire., p. 75-6. 79, and Universal Mag. and Review, v. 479.

²³ Cal. doc. Ire. 1171-1251, No. 983, p. 150; No. 1129, p. 171-2 and No. 1299, p. 197. See also Hist. & mun. doc. Ire., p. 79.

²⁴ Cal. doc. Ire. 1171-1251, No. 1697, p. 253-4.

²⁵ Cal. doc. Ire. 1171-1251, No. 1781, p. 266.

²⁶ Registrum Prioratus omnium sanctorum. Ed. R. Butler, Dublin, 1845, pp. xiv. 22-4.

²⁷ Cal. doc. Ire. 1171-1251, No. 2620, p. 391. Hist. & mun. doc. Ire., p. 101-2.

²⁸ Hist. & mun. doc. Ire., p. 495-9. Cal. doc. rec. Dublin, i. 161.

a document from the time of Edward I when the King, on the petition of the citizens of Dublin, directed his Deputy to inquire on that occasion into the fixed net near the bridge of Dublin.²⁹ The jurors stated that in the forty-fifth year of the reign of Henry III the prior of the Hospital of St. John of Jerusalem of Kilmainham and his men, by force of arms destroyed the ancient fixed net at the bridge of Dublin owned by the city. In retaliation the citizens destroyed the Hospital's mill. On payment of a fine of ten pounds by the city a settlement of the action was reached on the following basis:

The prior and his successors are to retain the land which they claim. Saving the Prior's right to one draught of fish, free boat and net the Mayor and commonalty are to have the free fishing in the Avenelif from the bridge of Kylmaynan to the sea. The passage of salmon great and small is not to be obstructed by nets, standards, weirs, other engines or impediments. The nets of the Mayor and commonalty as well those of the Prior and his successors are to be emptied solely on the lands on the north side between the bridge of Klymaynan and the sea.³⁰

This agreement was ratified by the city of Dublin in the form of a grant probably made in 1261 as follows:—

The citizens of Dublin grant to the poor and the brethern of the Hospital of Jerusalem at Kylmaynan the land, etc., between the water of Kylmehenok and the way going from Kylemehanok ford to Dublin. Reservation of land passage and right for the citizens' boats to pass from their bridge for fishing so far as the above named ford and saving the course of all their fishing, etc., as far as the same ford of Kylmehanok. Permission is also granted to the brethern to have a boat in the citizens' part of the water in the same manner as the best of the citizens.³¹

This agreement settled the relations of the city and the Hospital at Kilmainham as regards the fishing on the Liffey.

The Great Rolls of the Pipe for the fourth year of the reign of Edward I (1275) contains an account of "the farm of the fisheries of the Liffey." Pope Innocent III a year later confirmed to the Priory of All-Hallowes, Dublin, certain possessions, including its right to a fishing boat on the Liffey. Another dispute between the city and the Prior of Holy Trinity was decided on 2nd August 1281. The parties met at St. Patrick's and the city admitted the claim of the Prior to the tithes of the salmon fisheries on the Liffey. 4

The Hospital of St. John at Kilmainham received a gift of land at Kylmehanock in 1283 or 1284 from Audoen Brown and this grant was confirmed by the citizens of Dublin with reservations as to the fishery, that is

²⁹ Hist & mun. doc. Ire., 216-221.

³⁰ Cal. anc. rec. Dublin, i. 161.

³¹ Cal. anc. rec. Dublin, i. 163.

³² P.R.I. rep. D.K., xxxvi, 29.

³³ Reg. Prioratus omnium sanctorum, op. cit., p. 7.

³⁴ Lawlor, op. cit., pp. 12.66.

to say, the city confirmed the grant of land but made it clear that the adjacent fishing rights remained in its own hands.³⁵ Another religious institution, the Hospital of St. John without the New Gate of Dublin, received on 15 August 1284 from the Mayor and commonalty of Dublin "for the benefit of their souls and those of their ancestors and successors a grant of in pure and perpetual alms, the sixteenth fish of the salmon of their fishing hereafter to be taken in the water of Avenlyf." The city also confirmed to the abbey of St. Thomas, Dublin, a grant made by Henry II and John, of a boat for fishing on the Liffey.³⁷

Despite the fact that the Hospitallers at Kilmainham had some limited fishing rights of their own, it would appear that they also purchased, at least in one year, salmon from outside.³⁸

Towards the end of the thirteenth century the city again interfered with the fishing rights of St. Mary's abbey because the King directed the Lord Deputy "to take steps to prevent encroachments which the Abbot had complained of by the Mayor and Bailiffs on the fishery to which the Abbey were entitled under its charter from John." It was also about this time that Theobald Walter or FitzWalter, owner of land of the Steyne, granted land with appurtenant fisheries to Radulf and Richard Clut. The Priory of All-Hallowes had already obtained $2\frac{1}{2}$ acres of land here from the same man or his predecessor in title, and it also had the right of a boat on the river.

Further inquiries were directed by the King in 1304 as to the fixed net which was formerly fished at the bridge of Dublin. The inquisition taken at Dublin on 28th April 1304 the jurors referred to a lawsuit and agreement by the city of Dublin with the Hospital of St. John of Jerusalem in 1261, which has been mentioned previously. The interest of the Crown in the Liffey and its fisheries is also shown in 1304 when Richard de Beresford was commissioned to oversee the weirs on the Liffey between Dublin and the Salmon Leap (at Leixlip, Co. Kildare) and "to inquire, on oath, whether the said weirs had been used by any, and if so, by whom, in any manner different from the rights of usage and to abate all nuisances." The inquisitions and orders respecting these weirs are on record.

³⁵ Hist. & mun. doc. Ire., pp. 499-500.

³⁶ Cal. anc. rec. Dublin, i. 98. Hist. & mun. doc. Ire., p. 196.

³⁷ Reg. St. Thomas, Dublin, p. 287. No date is given for this confirmation.

³⁸ Cal. doc. Ire. 1285-92, No. 1151, p. 519.

³⁹ Chart. St. Mary's, i. 137.

⁴⁰ Cal. anc. rec. Dublin, i. 104.

⁴¹ Reg. Prioratus omnium sanctorum, op. cit., pp. xiv. 24.

⁴² Cal. doc. Ire. 1302-7, No. 239, pp. 81-2.

⁴³ Hist. & mun. doc. Ire., pp. 530-7 and Cal. justic rolls Ire., 1305-1307, pp. 257-259.

The tithes of the Liffey fisheries were the subject of another dispute in 1324. One Elyas Laules, rector of St. Audoens was in disagreement with the Prior and Chapter of Holy Trinity for on 15 May 1324, the Pope directed the Archbishop of Armagh to hear the Prior's complaints concerning "the tithes of salmon taken in the fishery of Auynliffi within the confines of St. Michan's parish near Dublin." The results of this inquiry are not recorded but it is obvious that the prior succeeded in his claims.

Edward III on 15 November 1331 confirmed to St. Mary's Abbey its numerous possessions, including, inter alia, a right to fish in the Liffey, a right which one would have thought was well enough established by that time. Some years later, in 1338, a grant was recorded in the register of Kilmainham to Robert, son of Thomas, 'the Reve,' for his good and laudable service 'who was appointed keeper of the grange in our house of Kilmainham together with the custody of the water and fishery of Anniliffey. Eleven years later one John Schortal was appointed 'assessor of the house of Kylmaynan and supervisor of the fishery.''

A further dispute between the city of Dublin and the prior of Holy Trinity took place in 1338 and on 19 November an inquiry was held at which the jurors again found that the Prior and convent "are rectors on both sides of the river Aniliffie, with right to the tithes of fish caught in the burgage of Dublin." It is surprising that after such a series of lawsuits over a long period of years the city of Dublin should have been again in dispute with Holy Trinity.

Richard II on 9 January 1386 granted a confirmation to the city of Dublin of, inter alia, "the water of Liffey." Eleven years later the same monarch on 5 April 1395 granted a confirmation to Robert, Archbishop of Dublin, of "a fishing boat for salmon on the Aniliffy," a right which as mentioned earlier his See had had since the twelfth century. 50

Up to the end of the fourteenth century there is no evidence as to how the city of Dublin exploited its fishing rights on the Liffey, but on 15 September 1399 the Mayor and Commonalty, "in consideration of a sum of money paid in advance grant for three years to their fellow citizen Richard Chamberlyn all their fishery in Avenlyth inclusive of salmon." This, as

⁴⁴ P.R.I. rep. D.K. xx. 74-5.

⁴⁵ Chart. St. Mary's, i. 396.

⁴⁶ Reg. Kilmain, p. 93.

⁴⁷ Reg. Kilmain, p. 136. See also R.S.A.I.Jn., liv. 29 for list of servants dealing with the fishery of the Liffey.

⁴⁸ Lawlor, op. cit. p. 58.

⁴⁹ Cal. rot. pat. Hib., p. 1246.

⁵⁰ C. MacNeill "Secular jurisdiction of Dublin archbishops", R.S.A.I.Jn., xlv. 107. See also D'alton, op. cit., p. 669.

⁵¹ Cal. anc. rec. Dublin, i. 174.

will be shown later, was the first of a series of grants or leases of the fishery from the Corporation.

By papal letters on 15 January 1418 confirmation of a boat and fishing on the Liffey was granted to St. Mary's Abbey which possessions had originally been granted by John. In the year 1425 on March 24 John Dyrre, a parishioner of St. Michans, and fisherman of a boat belonging to St. Mary's Abbey, was charged by the Prior of Holy Trinity with retaining the tithes of salmon due to his house. The charge was proven and John Dyrre was ordered to "pay the tithes—viz., two salmon or the equivalent in money, 2s. and 49s. for the cost of the action, and that, by way of penalty for his long detention of the tithes, he should, on six several days up to the feast of Pentecost, be beaten round St. Michan's Church, naked save for a loincloth, by the curate." 52

A further confirmation of the Archbishop of Dublin's right to have a boat to take salmon and other fish on the Liffey was granted in 1450 after "inspeximus" of the charter of Richard II mentioned earlier.

The city Corporation, as we have seen already, was jealous of its rights on the Liffey and took steps to protect its interests on every possible occasion. In 1466 the Corporation ordered "that no tanner, glover nor any person use limed ware or leather work in the River Liffey on account of the destruction of the salmon. Penalty $\frac{3}{4}$ d. for each offence, one half to be paid to the detector and $\frac{1}{2}$ d. to the court." This anti-pollution by-law shows considerable foresight on the part of the Corporation at a time when such matters were normally given scant attention.

An agreement dated 23 May 1473 between the canons of Holy Trinity and Nicholas Beket of the Hospital of St. John of Jerusalem, farmer of the manor of Clontarf as regards the tithes of the Liffey at Poolbeg is on record. 53 Sir Robert Dowdall, who had had the farm of the manor of Clontarf for many years made a declaration that he never had the tithes of Poolbeg but they were held by the Prior and convent of Holy Trinity. The Hospital at Kilmainham in the face of this statement acknowledged the right of Holy Trinity to these tithes. The exact limits of the region in which the Priory of Holy Trinity held the tithes of salmon and other fish was indicated in a document dated 20th November 1494.54 An inquiry held in St. Bridget's church showed that the Prior and convent of Christ Church were entitled to the tithes of salmon, herrings and other fish taken in Aniliffy from the seashore to the middle of the river, from "Isold's fount on the west to the Barffote on the east and from the monk's salmon fishery in the north to the Stayne on the south." The monk's salmon fishery was apparently that belonging to St. Mary's Abbey, as will be shown later. A similar inquiry

⁵² Lawlor, op. cit., p. 13.

⁵³ P.R.I. rep. D.K. xx. 91, and Lawlor, op. cit., p. 13.

⁵⁴ P.R.I. rep. D.K., xx. 101-2.

was held with the same results two years later.⁵⁵ Herrings and other fish were mentioned for the first time.

The abbey of St. Mary's and the priory of Holy Trinity bound themselves on 14 July 1500 in the sum of £100 to accept the decision of an arbitrator in connection with the dispute on the tithes of the fish taken in the Liffey. The arbitrators on 17 July 1500 declared that the Prior and convent of Holy Trinity were "entitled to all tithes of fish on both sides of Aniliffi, except half the tithes of fish landed on the north side of the Fyr pole which belongs to the abbot of B.V.M. (St. Mary's Abbey)." Arrangements were made for defining marks to be erected. Less than a month later arbitrators gave their decision in favour of the priory of Holy Trinity in its dispute with the abbey of All-Hallows regarding the tithes of the Liffey. 57

Three of the parties having limited rights of fishing on the Liffey, the Archbishop of Dublin, the prior of the house of Kilmainham and the abbot of St. Mary's Abbey were granted the fishing rights owned by the Dublin Corporation for 7 years from 1503 at a yearly rent of 8 marks.⁵⁸ In the following year Walter, Archbishop of Dublin, confirmed to Holy Trinity Church, *inter alia*, the tithes of fish taken in the Liffey, subject to St. Mary's Abbey's interest in the "Fyr pole."

Further disputes regarding the fisheries between the city of Dublin on one hand, and the abbeys of St. Mary and All-Hallows on the other, occurred early in the sixteenth century. On 10 January 1517, an agreement was made between the Mayor of Dublin and the abbot of St. Mary's Abbey to settle their differences by arbitration. The claims by the abbey to have a boat for fishing on the Liffey "by virtue of grants from the King's progenitors," the fish called the pre-meys in the time of the herring fishery and the right to place nets and stakes on the land and strand of the abbey on the north bank of the Liffey were all upheld. This agreement shows quite clearly that the fishing owned by St. Mary's Abbey was adjacent to its land along the north side of the river. The right to place nets and stakes on the strand of the abbey was not solely for the purpose of drying the nets after use for the abbey had a liberty of having hake nets on the North Strand.

The abbey of St. Thomas also had a protracted dispute with the city of Dublin regarding certain matters including, *inter alia*, the right of having a boat on the Liffey. On 12 August 1527 the two parties submitted the case

⁵⁵ P.R.I. rep. D.K., xx. 104.

⁵⁶ P.R.I. rep. D.K., xx. 105 and Lawlor, p. 26-27.

⁵⁷ Lawlor, op. cit., p. 32.

⁵⁸ Cal. anc. rec. Dublin, i. 390.

⁵⁹ P.R.I. rep. D.K., xx. 379.

⁶⁰ Cal. anc. rec. Dublin, i. 175. Chart. St. Mary's, ii. 31-34.

⁶¹ John D'alton, The history of Drogheda with its environs, 1863, i. li.

to four arbitrators, viz., the abbot of St. Mary's Abbey, the prior of Holy Trinity, the dean of St. Patrick's, Dublin, and John FitzSymon of Dublin, a merchant. On 20 September of the same year the arbitrators made their award in favour of the abbey. They said

the sayd Abbot and convent, and their successors for ever, shall have their boat to fish upon the water of the city in like manner as the Abbot of Saint Marys Abbey have without any contradiction, so that the Abbot and convent, nor none of their successors shall sell no salmon nor set their boats for hire but all such fish as are taken with their boat go always to the use and behof of their place or else to be given and ministered at the discretion of the Abbot for the time being.⁶²

The original intention of the persons who granted the limited rights of fishing to various religious houses are indicated in this document. That is to say, the right of having a boat on the Liffey was for the purpose of supplying the fish requirements of the monks and not as an additional source of revenue.

No further references to this fishery appear to be available until after the dissolution of the monasteries. Shortly before that time the position as regards the ownership of the Corporation fishery on the Liffey may be briefly summarised as follows. In the lower part of the Liffey up to the site of the gallows, close to the present Parkgate Street entrance to Phoenix Park the city of Dublin owned the whole fishing, subject to the rights of the abbeys of St. Mary, St. Thomas, and All-Hallows and the Archbishop of Dublin to have boats on the water. The tithes of this water were in the possession of the prior and convent of Holy Trinity, except for half of the tithes of fish landed on "the north side of the Fyr pole" which belonged to the abbot of St. Mary's Abbey. Upstream of the gallows to approximately the site of the present Islandbridge weir one moiety of the fishery belonged to the Hospital of St. John of Jerusalem and the remainder to the city of Dublin. The tithes of the fish taken in this region were in the hands of the prior and convent of Holy Trinity.

Although no mention was made in records up to this date of a salmon weir at Kilmainham, in the extent taken on 7 April 1541 the Hospital of St. John of Jerusalem was shown as possessing, *inter alia*, "a weir on the same river (Liffey) with 4 'hachis' for catching salmon, value with the fishery on the river with boat and nets, £26-13-4." This weir was mentioned in many later records.

⁶² Cal. pat. rolls. Ire. Eliz., p. 62. Cal. anc. rec. Dublin, i. 186.

⁶³ Ir. mon. extents, p. 82.

NEOLITHIC HABITATION SITE, STONE CIRCLES AND ALIGNMENTS AT BEAGHMORE, CO. TYRONE.

By A. McL. May, Member.

B EAGHMORE,—Large Birches, the townland name of the district, suggests that it was once remarkable for its birch trees though to-day the species is absent from the neighbourhood. It is situated in the eastern foothills of the Sperrin Mountains, near the Derry-Tyrone border. This prominent range, geologically Caledonian in structure, forms a line parallel with the north coast of Ireland as it runs from the massif of Slieve Gallion (1735'), at its extreme eastern end, westwards into Donegal.

An extensive outcrop called Blackrock is perhaps more widely known than Beaghmore, of which it is a prominent feature. It rises from the southern side of the bog in which the prehistoric sites to be described are situated. Here many varieties of rock occur, including Quartz, Porphyry, Diorite, Dolerite, Gabbro, Andesite, Granite, etc. Hartley¹ states that in most cases the hybrid rocks are quite distinctive, being chiefly developed around the quartz, porphyry and granite exposures of Blackrock. The stones used in erecting the structures are typically local ones, and the soil is remarkably varied by reason of the disintegrated particles composing it.

The nearest centre is Cookstown, twelve miles distant. A good road from there now passes the site, which can also be reached from Draperstown, in County Derry.

Extensive areas of hillside are covered still by blanket peat. In one such bog we found our complex slowly appearing as the local farmers stripped the peat. For miles around, on land denuded of turf, standing stones, now leaning or prone, push their tops through the heather; here and there imposing heaps suggest larger structures wrecked thoughtlessly or wantonly long ago.

Beaghmore first came to my notice in 1945 when I was reporting on a newly discovered site some miles away for the Archeological Survey. My guide was George Barnett, a well-known personality in Derry and Tyrone, whose knowledge of the geology and natural history of these hills is unsurpassed. Among the numerous sites we visited was the bog at Beaghmore, where turf cutters had partly uncovered several stone structures (Plate XXX).

¹ Geology of N.E. Tyrone and adjacent portions of Co. Londonderry.



The Site before Excavation.



The first reference to these appears in the "Preliminary Survey of the Ancient Monuments of Northern Ireland" p. 227, where Prof. O. Davies, one of the compilers, records as follows:—

"Beaghmore Td. Stone Circles. Near last-mentioned monument, but to N.E. Tyr. Sh. 20, 19½ ins. E., 20 ins. S., Plan 15, Tr. 1 (not marked in 1908 Edn. of O.S. Map). Alt. 600 ft. 2 stone circles close to each other, one 35 ft. in diam. About 100 yds. to N. another circle, 63 ft. in diam., with 3 tall standing stones to one side of it. 50 yds. to the E. of the last is a fourth circle, 40 ft. in diam., with quasi-tangential alignments between which is a small cairn."

The italics are mine. They refer to that part of the site which first attracted my attention and was the first to be excavated.

With the help of grants from the Ministry of Finance and the Ulster Journal of Archaeology Excavation Fund the work was begun in 1945, and proceeded smoothly until 1949, when the Ministry acquired the property, and ultimately closed the site for an indefinite period. Consequently much of the work on the complex is far from complete; this report covers only that on the eastern half.

The Site. Only one road passes the site; it cuts through the eastern end of the complex, isolating a cairn and alignment (C 11) to the east of the enclosure.

A layer of peat, ranging from 2' to 6' deep (analyses of its pollen content were obtained from two stations), still covers much of the area, and though there is a gentle slope from west to east and from south to north it is subject to flooding after heavy rain; for on the northern side, to which all drainage waters seep, deep peat prevents rapid clearance of the water. Thus excavation could only be carried on when the weather had been dry for some time. Turf cutting, carting and heavy labour, which were provided by the local farmers, were only available when agricultural demands permitted.

The visible standing stones number 1,269, and cover some acres. The full extent of the complex must remain a matter for conjecture until all the turf has been cut. To the east of the highway, at the entrance gates, where it was cleared long ago, nothing of the complex now remains save a few scattered stones. About 70 yards from the road lies a large, squarish block of stone fractured almost in two. It is flattish on top and measures roughly 9' by 9'; its depth could not be ascertained as the ground is still flooded. I have called this a hele stone; for it seems to be in line with an oriented avenue that stands on its western side (Fig. 2).

For convenience of description the various structures have been recorded in groups; but there is considerable evidence to suggest that at least several of these form one large composite arrangement.

GROUP 1.

This consists of a pair of circles, with a small cairn between them. On the eastern edge of the latter is a small fore-court bounded by the cairn and the sides of the circles. From the fore-court two alignments run in an easterly direction, fanning out slightly to form an avenue. Their most westerly stones serve as a portal entrance to the fore-court in front of the cairn (Fig. 2).

From each circle a tangential alignment runs in an easterly direction, fanning out and flanking the avenue (Plate XXXII, Figs. 1 and 2). The entire effect of the pair of circles with the cairn and the four alignments is that of a pair of scissors or spectacles.

Circle A. This, the larger of the pair, is oval rather than circular. It measures 31½ ft. N.-S., by 39 ft. E.-W. and consists of 52 stones of an average diameter of 16 in. A section cut from N. to S. revealed nothing of importance. (S 1, Figs. 2 and 6). From this circle a small alignment of fifteen stones curves outwards at a point close to the forecourt, then straightens up to run in a S.E. direction for 35 ft. (L 1). The stones are small, their average diameter being 9 in.

Circle B (Fig. 2), consists of 43 stones slightly over 1 ft. 4 in. in their greatest diameters. It is 32 ft. N.-S. by 33 ft. E.-W. From it, close beside the fore-court, a long alignment of small stones less than 1 ft. in diameter (L 4), runs 83 ft. towards the E. passing over a causeway on the way. Before the turf was removed from this circle a vertical section was cut for pollen analysis, a report of which is given on p. 194.

The inner pair of alignments forms the avenue. That on the north flank (L 3) consists of four tall, sharply-pointed stones of an average height of 4 ft. 1 in. They appear to have been carefully selected with an orientation of 50° E. of N. but they only extend to a distance of 24 ft. from the forecourt, of which the end one forms one of the portal stones of the façade. The other alignament L 2), forming the S. flank of the avenue, consists of 12 stones running 72 ft. from the fore-court. Their average height is 2 ft. 3 in. Ten of them are squat and flattish on top, the other two slightly pointed. As the soil in this circle seemed no more likely to yield archaeological evidence than Circle A, it was decided not to section it in the meantime.

THE CAUSEWAY OR DYKE?

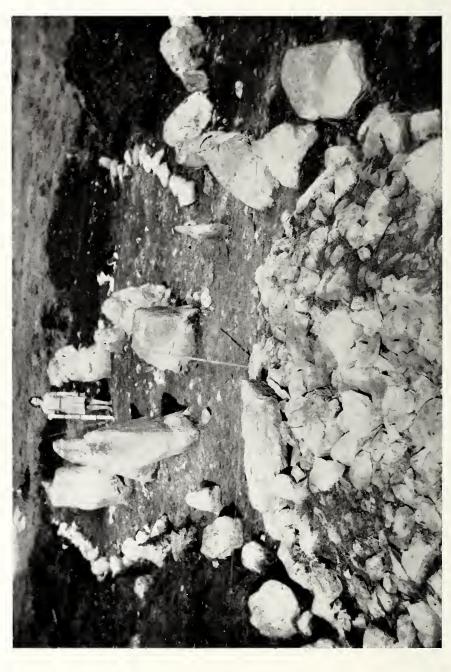
Whether the lines of stones now to be dealt with were built as the foundations of causeways covered by sods or as foundations for protective fences of the same material, it is impossible to say. For convenience of description they will be referred to as causeways; but the alternative possibility should be borne in mind.

Fifty-three feet from the portal stones, a causeway passes under the avenue, the ninth stone of the alignment (L 2) being embedded on it. As the causeway runs from N.S. it also passes under alignment L 4. The total length of it visible is 172 ft., its northern end entering the uncut peat some distance outside the fence enclosing the site. About 80 ft. N. of the point where alignment L 4 intersects the causeway, a large flat stone shows its



Photo by courtesy of Royal Navy.

Groups 1 and 2. Circles A and B (right), C and D (left) with their Cairns and alignments. Causeway in upper right-hand corner.



Avenue, Forecourt, Cairn C1, flanking Alignments and the two sentinal-stones in line with entrance.

top above the soil near the northern visible extremity of the causeway (Fig. 1). Here a second series of peat samples were taken for pollen analysis p. 194). Stones, which may be part of an alignment coming out of the bog from the west, are visible here. These mark the limit between explored ground and virgin turf on the N.E.

About 110 ft. to the W. of the causeway, where it crosses under the avenue, is part of another, running roughly parallel. It may possibly be a meandering portion of the eastern one. Time did not permit its course being followed but a section was removed to inspect its structure at the western exposure, which is 27 ft. from the W. of Circle A. Apparently its stones, 4 in. to 8 in. in diameter, had been placed on unprepared soil. Some pasty but unidentifiable charcoal particles were the only things found. Around this section the stones were much scattered, so it is possible that later occupiers of the site had removed the larger ones to smooth the surface (Figs. 1, 3 and 6).

About half a mile to the S.W. of this a farmer cutting turf has uncovered a similar, but somewhat larger stoned, causeway on the hillside. Five miles away, in Glenviggen, a long line of rather similarly constructed causeway runs out from the deep peat. It is associated with small cairns not unlike those at Beaghmore. I reported on them for the Survey, but they have yet to be closely investigated.

THE FORECOURT. (Figs. 1 and 2 and Plate XXXII).

The greatest length of this little enclosure is 10 ft. The surface is flat and very hard; one flint blade was found on it (Fig. 9, No. 6). No examination of the soil has yet been made. In outline the forecourt is "U" or heel shaped. It is bounded by the cairn kerb, the walls of the circles, and the façade formed by the end-stones of the avenue. The gaps between the facade ends and the circles are closed by two small stones (Fig. 2).

Cairn C1 (Fig. 2). This little cairn between the circles is 10 feet in diameter. Near its centre lies a small shallow rectangular cist, its base a flat stone and its walls five stones laid on their sides. The base-stone has a groove running across it approximately in a N.S. direction—a feature found in another cist in Cairn C 6. This cist contained a stone axe head—its only content—when first opened by a turf cutter. After years of search we were able to trace and obtain the loan of this axe for examination. The cist has a rough, flattish capstone weighing about 1 cwt. A section was made through the cairn from E.-W. running under the base-stone of the cist; but apart from the eist with its axe nothing of interest was found.

Some fine soil laid on top of a light gritty till formed the base of the cairn. The comparatively large kerb stones are closely set together. From the forecourt two gaps in the stones of each circle permit passage to and fro. A rather strange feature of the group was the complete absence of charcoal.

Report on Stone Axes. The Stone Axe found in Cairn 1, along with five others that local farmers had found in the immediate neighbourhood, was sent to the Geological Survey and Museum, London, for petrographical identification. Five of the axes fall into Group IX of the classification of axe-rock types adopted by the S. W. England Group of Museums.

Mrs. J. E. Morey has kindly furnished the following report:

"AXE A, From Cist in Cairn C 1, Fig. 10. The specimen is made of dark grey-coloured rock mottled with black and occasionally speckled cream coloured markings. The rock is composed of sillimanite (refractive index N=1.657) in acicular and fibrous forms with low birefringence and length slow. The sillimanite fibres are compacted to form a dense felt of light coloured material. Haematite is the only other material present, occurring in small grains which are either black and opaque or bright red and translucent. Aggregates of haematite form the black markings seen in the hand specimen. The rock is porcellanite."

This axe is relatively thick in section. It is 5 in. long. The profile shows one end broadly pointed while the other, 2 in. broad, displays the remains of a well-curved, though now much abraded cutting surface. The broad faces are flatly bevelled towards the sides. These sides are flattened for their full length, forming a long pointed oval face, not unlike that on some bronze axes. The maximum width of this flattening is $\frac{3}{8}$ in. The bevelling of the surface and the flattening of the sides suggest a late type. While these characteristics may have originated in Neolithic times it was only in the Bronze Age that flattened edges were common.

AXE B, Fig. 10.

"The specimen is similar to C."

AXE C, Fig. 10.

"The specimen is made from a fine grained rock breaking with a conchoidal fracture and of a dark grey colour with very fine cream-coloured freckles. It is porcellanite composed of sillimanite, opaque and translucent haematite and a little silliceous or glassy material."

AXE D, Fig. 10.

"The rock is a dark grey colour mottled with cream-coloured blotches and streaks which are arranged with their long axes parallel. The rock breaks with a conchoidal fracture and is composed of sillimanite, and opaque and translucent haematite. A little siliceous material or glass is present with a refractive index approximately 1.531. The rock is a porcellanite."

AXE E, Fig. 10.

"The specimen is made from a fine grained rock which weathers at the surface to a buff colour and is speckled with lighter coloured material. The rock is a porcellanite composed of sillimanite, opaque and translucent haematite, quartz (with refractive index n=1.544) and glassy material."

AXE F, Fig. 10.

"The rock is a very fine-grained indurated chloritic Siltstone. It is composed of closely compacted angular grains of quartz, and flakes of chlorite up to 0.005 m.m. in size, together with some feldspar and numerous minute flakes of micaceous or clay minerals. Iron ores are present as limonite and small clusters or streaks of opaque magnetite or ilmenite; these streaks tend to be aligned with their longer axes

parallel. Small rhombohedral, brown-coloured crystals (approximately 0.002 m.m. in size) of a ferruginous carbonate appear scattered throughout the rock."

Siltstone axes were not uncommon in the lower Bann Valley.

The following notes on Group IX of the classification of axe rock-types adopted by the S. W. England Group of Museums, into which five of these axes fall, are recorded in P. P. S. 1941, p. 63.

"In 1903 Mr. W. J. Knowes described an axe factory near Cushendall, Co. Antrim, and stated that pieces of the natural rock, rough axes, flakes and hammer stones occur in association. . . . The rock is compact, hard, mottled bluish black with darker spots, has a flint aspect and breaks with a splintery fracture.

"With the co-operation of Mr. D. Ashby, B.Sc., and Dr. S. I. Tomkeieff (1940) it has now been established that the rock is a porcellanite and occurs in screes on the

slopes of Tievebulliagh Hill, 21 miles west of Cushendall, Co. Antrim.

"Dr. Tomkeieff describes this porcellanite as probably representing a pisolithic bauxitic clay from the inter-basaltic horizon which was baked by the dolerite magna of the plug and subsequently removed by denudation with the exception of the fragments left in the scree. It is composed of dark spinel and a light fine-grained aggregate of sillimanite and mullite."

Several hundred of axes of porcellanite material are in the National Museum, Dublin, the Stranmillis Museum, Belfast, and in private collections. Axes derived from Tievebulliagh Hill have also been found in places as widely scattered as Dorset, Dumbartonshire, Gloucestershire and Kent. As the porcellanites used at Tievebulliagh and Rathlin Island are indistinguishable from one another these axes could have been manufactured from either site. (Both are on the route of entry into Ireland by the short sea passage.) Beaghmore is only 31 miles from the River Bann by a track from the ford at Carnroe into the hills south of Garvagh, and approximately the same distance from the prehistoric settlements at the Bann estuary by an easier entry upwards at Downhill, thence by Gortcorbies, Dungiven, Ballynascreen and Davagh.

Group 2 (Figs. 1 and 3). This lies to the west of Group 1. It consists of two circles (C and D), a cairn (C 2), and a double alignment (L5 and L6)—an arrangement of parts similar to the first group, yet differing in several features:

- (1) Although the avenue is oriented, the circles lie in a different axis— E.N.E. by W.S.W.—and are only separated by a narrow passage.
- (2) A definite forecourt between avenue and cairn is absent though there is a distinct gap between the end-stones of the alignments and the cairn which may have served this purpose.
- (3) The alignments are roughly parallel and do not fan out.
- (4) The alignment on the north side of the avenue (L6) consists of four tall stones, averaging 3 ft. 2 in. above ground, with their broad surfaces to the line of the avenue, while the alignment on the south flank (L5) consists of numerous *small* stones, which extend eastwards for an unknown distance into the uncut bog. It may come

out at the other side of the peat-bank: part of an alignment (L10) appears there some 50 yards farther east (Fig. 1), though this may of course belong to some other structure still peat-bound.

At the east end of the four large orthostats (L6), and in line with them, lies a large flat slab just showing above the soil. Twenty-five feet further east from the same point stands what may be a small cairn (C3, Figs. 1 and 3). It is under water and has not been examined.

Cairn C2 is 15 feet in diameter. There is a little corbelled cist near its centre. As every freshly uncovered cairn in this area is tampered with by hopeful treasure seekers we decided to examine the cist, whose capstone had already been pushed aside by some of them, before further damage could be done. It measured 20 in. in diameter. Peat water had destroyed almost all evidence of the original contents; yet from the pasty charcoal and brown smear faintly recognisable as the remains of a pottery sherd we assumed, despite the total absence of bone fragments, that it had been a burial chamber. The unpaved floor was composed of dark, sodden, sandy clay.

Circle C. (Figs. 1 and 3). This stands on ground rising gently towards the S. and W. and is rather irregular in outline. Its thirty stones enclose an area 56 ft. from E. to W. by 52 ft. from N. to S. The soil shows considerable variation in character. The drier southern half had presumably been used as a domestic site by the earliest occupants; for two shallow hearthpits occupy part of the S. W. quadrant. They suggest seasonal, rather than continuous, occupation by a small group of individuals, whose activities apparently antedated the erection of the circles.

Two flat stones protrude a few inches above the surface of the circle. One, towards the N.E., is about 4 ft. by $3\frac{1}{2}$ ft., with a V-shaped channel running across its surface from N.-S., a feature seen in stones of Cairns C1 and C6. The other is an outcrop in the S.W. quadrant, 3 ft. by 3 ft. on surface, at the edge of Section S4, close to one of the hearth pits (Fig. 3 and Plate XXXIII).

Hearth Pit No. 1. Starting close beside this stone a pit with an average breadth of 4 ft. and a maximum depth of 15 in. extended towards the southern edge of the circle for a distance of 8 feet. At this horizon we found a primitive fireplace of four stones, surrounded by the dark ash of burnt timber. Similar fireplaces are common in early settlement sites; they were numerous in the cave floor at Portbradden. Apparently this pit had been abandoned for some time and its fireplace lightly covered by soil; for a more elaborate hearth had been built on top of it, with its fireplace almost above the earlier one. In the fireplace and amongst the hearth stones were pottery sherds of four vessels of Neolithic ware (See Prof. Childe's report), charcoal, and two flints (Fig. 9, Nos. 2 and 3). Ultimately the hearth was covered to an average depth of 5 in., with a layer of dark soil, tiny pebbles and sandy clay, which had either been carried there by surface water after the hearth had been abandoned or filled in by the later arriving circle-builders.



(1) Hearth No. 1, with flat stone at right.



(2) Part of Circle C erected on bank of pebbles.



(1) Passage between Circles C and D leading to Cairn C 2.



(2) Cairn C 4 with chamber in which oak stem was embedded.

There is nothing to suggest that the hearths and the circles were in use at the same time.

Hearth Pit No. 2. This was found in Section 85 (Figs. 1, 3 and 4) in the South-West corner of the same quadrant, close beside stones Nos. 14, 15 and 16 of the circle. This hearth pit was less distinctly outlined and had one fireplace at a depth of 13 inches with charcoal particles in abundance and five shreds of Neolithic pottery. The sandy soil at the edge

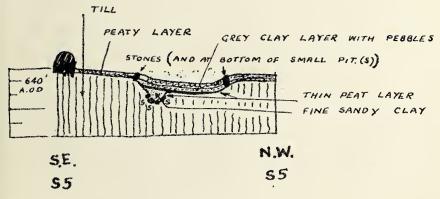


Fig. 4.—Section S 5, Circle C.

of the pit showed a thin humus layer at a depth of 4 to 5 in. sloping slightly downward to the side of the pit but not extending across it. This humus layer was not evenly spread over the site, but only occurred in patches. A large section of the soil from the edge of this pit was sent to Dr. Mitchell for examination and his report on it shows that the soil had been disturbed before the humus layer formed. This section also revealed that stones Nos. 14, 15 and 16 were embedded on the edge of a bank of small pebbles, 3 to 5 in. in diameter (Plate XXXIII). As this mound of pebbles passes under a roadway we had made just outside the circle for carting away turf, it could not be investigated at the time.

One flint (Fig. 9, No. 7) came from the fireplace of Section 85, and three from the surface of the circle (Fig. 9, Nos. 4, 8 and 11).

Circle D. (Figs. 1 and 3). This circle measures 55 ft. E.-W. by 53 ft. N.-S. and consists of 46 stones of an average diameter of 18 in. Only a narrow path leading to and from the front of the Cairn C2 separates it from Circle C (Plate XXXIV). As the cart-road leads through it, no examination of the surface has yet been made.

Pottery. The report of Prof. V. G. Childe, who kindly reported on the pottery sherds from Circle C, is as follows:—

"All the pottery was in a very soft condition owing to prolonged soaking in the bog, but responded well to impregnation in the laboratory of the university of London

Institute of Archaeology. All the sherds exhibited, in section, a markedly layered structure well shown in photograph (Plate V). Five small sherds 1, B1, B2, B3 and 3 fitted together to form one recognisable fragment of a large carinated vessel about 7 mm. thick. The paste markedly layered, contains white angular grits of quartz ranging from rather under to a little over 1 mm, across. The surface appears as a finer layer through which very few quartz grits protrude but may represent the results of smoothing as well as an applied slip. The core is almost black but the surface is a dirty leathery brown externally and bluish grey inside. The later surface has been lightly brushed or impressed with some vegetable material-probably rush leaves-which have left very characteristic impressions showing clearly the fibrous texture (not to be confused with basket or mat impressions) (Fig. 11). One sherd contains enough of a low rounded shoulder to show that it belongs to a carinated vessel but the shoulder is too ill-defined and all the sherds so much deformed by moisture that the exact orientation of the vessel is uncertain. It could, however, quite well have been an open bowl of Form G of Neolithic A Ware. The vessel in any case can be assigned to that family.

"To the same family and perhaps the same vessel belong C, D and possibly E.

"B5 is of harder ware at almost 6 mm. thick and tapering to 3 mm. with a black core and reddish brown slip inside and out. It could likewise pass for Neolithic A.

"Sherd 2, 13 mm. thick is of coarse and softer ware with fewer Quartz grits. The core is black but the surface inside and out is covered with a slip now brown and tending to peel off; trace of a shoulder on the outside.

Shred 4, 9 mm. thick has a black interior but is dirty brown outside. Both 2 and 4 might be Secondary Neolithic."

Charcoal. It is interesting to note that no charcoal could be found in any of the structures of Group 1.

Although much of the charcoal was in paste form samples of identifiable specimens were obtained from the fireplaces of Circle C, from amongst clay on its surface and from clay in Cairn 6. These were sent to Mr. M. Y. Orr, The Royal Botanic Garden, Edinburgh. With three exceptions they are Hazel (Corylus avellana). One of the exceptions was a piece of Birch (Betula sp.) from Cairn 6, and another a fragment of Williow (Salix) from beside pottery sherds in Circle C. Of the third, which came from the last horizon, Mr. Orr states:—

"I am not sure whether it consists of Alder or Hazel but as Hazel predominates in the other samples I am inclined to call it Hazel."

A sample of white clay from against the flat stone on edge of Hearth Pit 1, in Section 4, was also sent to Mr. Orr as it contained much decayed roots of vegetation. His report is as follows:—

"I regret that I have been unsuccessful in regard to the soil section. There are present a number of roots and rootlets but these are in a poor state of preservation; in most cases the softer portions of the interior of the root have rotted away and their identification is therefore impossible. In one case only was the internal structure of the root more or less preserved, and this structure resembled the root of a Carex but one cannot be certain. Roots of different plants are so much alike in their anatomy. Fragments of bark are also present in this soil section and these again are in a state of decay, and through these roots and rootlets have penetrated in every direction. Maceration of fragments of bark yielded no conclusive evidence of identity."

GROUP 3.

Cairn C4 (Figs. 1, 5 and 6 and Plate XXXIV). This cairn lies 30 ft. N.W. of Cairn C3. It is irregular in shape with a maximum diameter of 8 ft. It is only 1 ft. high. From its S. side, a few stones in line appear to extend towards Group 2; these have not yet been uncovered. In the centre of the cairn is a roughly rectangular cavity, in the east side of which, at a depth

SKETCH PLAN AND SECTION CAIRN 4 (SHEET 3 and 4). CORBELLED "CIST"(P) { (PEAT REMOVED ONLY) E OAK LIN TWO PIECES) FOUND HERE Scale . 1"=2"

Fig. 6.

of 13 ins., a small section of oak stem was embedded. Examination revealed that the cavity was filled with wet peaty sand and fine grits. Water flowed in as its contents were taken out. No evidence of tree roots was found with the oak-stem, which suggested that it was part, not of a tree that had grown there, but of a stem that had been inserted into the chamber. The specimen

was forwarded to the Forest Products Research Laboratory for examination by their experts, and Mr. B. J. Rendle has kindly supplied the following report:—

"We have now examined your specimen of oak excavated from a bog. It is part of a tree of considerable size, at least 12 inches in diameter at the point from which the piece was taken. From the irregular nature of the grain it would appear to be from the base of the trunk. It is impossible to give an unqualified opinion on the origin of the specimen. On the whole, however, in view of the complete absence of other wood material, particularly of the root system, and the comparatively good state of preservation of your specimen, we are inclined to think that it was probably brought to the site by human agency."

Cairn C5. (Figs. 1, 5 and 8. Plate XXXV). This is in line with Cairns C3 and C4 and approximately 30 ft. N.W. of the latter. It lies at the E. end of the alignment of large orthostats (L7) that stretch from the Cairn C6, beside Circle E, not yet described. The diameter of C5 is 8 ft. and it is built on a layer of yellowish clay to a maximum thickness of 5 in. On top of this was a single layer of small pebbles surmounted by a black soil 4-5 in. deep, showing pasty charcoal, a few particles of decayed bone and two small flints (Fig. 9, Nos. 9 and 10), but no vestiges of pottery. Apparently this was a cistless burial site, covered with a layer of cairn stones 1 ft. thick in the centre.

Circle E. (Figs. 1 and 5, Plate XXXVI). This circle is perhaps the most interesting structure yet found in the complex. It is more oval than round, and measures 59 ft. at its greatest diameter. The area inside the circumference is evenly studded with 884 small stones including the peristalith. It is difficult to state how many of the 52 stones in the outer row belong to the peristalith; for the latter consists of stones of greatly varying size, and of much greater average height than those in any of the other circles. On the S.E. edge of the circle is a small Cairn, C6.

Cairn C6. (Plate XXXVI). This cairn is 10 feet in diameter. As about two-thirds of it lies inside Circle E, it interrupts the continuity of the outer ring of orthostats. The close fitting of the cairn-stones suggests considerable care and skill on the part of the builders. Two red gneiss stones about 5 in. in diameter, in line roughly N.-S., had been inserted in the surface of the cairn near the western side. One of these has unfortunately been taken away. To the N. of the centre of the cairn is a small flag stone 2 ft. 5 in. by 1 ft. 3 in., with a shallow V-shaped or saddle surface, the V running N.-S. On the eastern half of the saddle lay a pile of incinerated bones on some prepared material that formed an adherent heap. The western half of the stone was bare and clean, the eastern half deeply stained by its burden. Only 6 in. of cairn stones covered the saddle stone. On the N. side of the latter, but 1 ft, lower, was a small capstone covering a tiny corbelled cist 20 in. in diameter. This cist contained another parcel of cremated bones at soil level (Fig. 8). (A few weeks later some vandal broke down the walls of the cist.)



Cairn C5 at end of three-stoned alignment of Circle E.





Beaghmore: (1) Cairn C6 on edge of Circle E. Behind it a large orthostat of alignment L7.

(2) Thickly stone-studded surface of Circle E.

Both samples of bone were forwarded to the late Professor Walmsley, who reported on them as follows:—

"The two parcels (A from the floor of the Cist and B from the hollow of the "saddle stone") consist mainly of earth in A and peat in B in which, as in a breccia, there are small friable fragments of burnt bone and small pieces of charcoal. burning has not been complete, and, the amount of charring on further burning and the amount of residue after decalcification in samples from the two parcels being the same, I think it is likely that both parcels are from the same incineration. In parcel A, owing to the small size and close texture mixture of the fragments, I am unable with certainty to recognize any part but there are pieces which suggest parts of the neural arch of a human vertebra and of the cortex of human limb bones; in parcel "B" I am able to recognize two fragments of the vault of a skull and an upper pre-molar tooth which are adult human. I conclude, therefore, this is a human incineration burial but I am unable to be certain that only the head was on the 'saddle stone' and the trunk and limbs in the cist. The bones on the 'saddle stone' had been laid on a prepared layer which consists of finely laminated, hard-packed dark amorphous peat, containing some fungal and moss filaments and a few twigs of Birch; well-preserved rootlets of Carex sp. (sedge) branch freely in the loose upper peat and run along the planes of the laminations in the dense lower layer. (This description was given me by Miss P. Kertland of the Department of Botany). I think it may be taken, therefore, that some ceremonial preparation was made for the deposit of part of the incineration remains on the saddle stone; it may even have been that a shallow urn was made for them."

Professor Walmsley in discussing the type of incineration suggested that the cremation belonged to the Early-middle Bronze-Age period.

Inside the circle, 20 ft. to the N. of the cairn, is a large flat stone that may be either an errant capstone or the cover of a chamber; for security reasons we left this partly covered.

Twenty-three feet from the W. side of the cairn and also inside the circle, lay a small leaf or heart-shaped stone, 2 in. thick, by 15 in. long, by $10\frac{1}{2}$ ins. broad, which showed considerable signs of working. An examination of the soil beneath it gave the following profile:—surface peat; greyish clay 3 in.; subterranean peat 1 in.; light coloured clay $\frac{1}{2}$ in.; yellow sandy clay beneath. The humus layer was probably formed by the roots of plants unable to penetrate the iron pan. The stones surrounding the leaf-shaped flag had been carefully set in position and wedged by tiny packing stones.

The riddle of this carpet of stones, embedded over the whole floor of the circle, is one for which it is hard even to suggest a solution. The stones are set so close to each other that it is difficult to walk between them; nor could they be used as stepping stones. There seems no definite plan in their arrangement; some run in straight lines; others follow the curve of the circle. The clearing of the turf from this circle was one of the last tasks of the expedition, so that no time was available to plot each stone on the plan.

Double Alignment, L7 and L8 (Figs. 1 and 5). These alignments differ from the double alignments in Groups 1 and 2 in that the line with the orthostats (L7) is on the *south* flank of the avenue and consists of only *three*

stones. These are the largest stones in the complex; No. 1, beside the cairn, is over 5 ft. high. L8 starts at the cairn and runs parallel with L7, but on its N. side, and continues eastwards to disappear into the uncut bog.

These five circles, while they differ from each other in certain respects, agree in their association with a small cairn from which a double alignment runs towards the east forming a narrow avenue. One of the alignments in each avenue consists of four or three relatively large sharp-pointed stones the broad sides of which are parallel with the line of the avenue. Their importance in the fundamental urge that led to the erection of this great hill sanctuary is evidenced by the relatively large size of the stones; their orientation to a common azimuth; their uniform approach to a cairn with its associated circle or circles; and the presence of a more or less primitive forecourt between them and their cairns.

In Groups 1 and 2 the chief alignments with their four tall orthostats form the *north* side of the avenue; in Group 3 the chief alignment of three taller stones forms the *south* flank of the avenue—differences in structural arrangement which are perplexing.

REPORT ON FLINTS. (Fig. 9).

- No. 1. This is a thick, dark-grey, chisel-edged flake. Cutting edge abraded, opposite edge broken off. Underside concave, showing a line of heavy polishing at bottom of concavity. Upperside boldly flaked and showing two patches of cortex. From surface of Circle E.
- No. 2. A thick pointed flake with sharp cutting edge from shoulder to point. Creamy white in colour but dulled by contact with fire. Bulbar end square. From surface of Circle C at Section S4.
- No. 3. Thick triangular flake knife with cutting edge broken by use. Long strip of white crust on upper edge smoothed by polishing. From surface of Circle C beside Section S4.
- No. 4. Half a flint pebble. Cortex earthy brown. Would make good scraping tool. Circle C.
- No. 5. A thick plunging flake trimmed on two edges by light pressure flaking and on the thick end by steep flaking. Mesolithic in technique. From field near Beaghmore during agricultural operations.
- No. 6. A thin semi-transparent flake with triangular point on back, evidence of use on cutting edge and one side of the triangle. Found on the surface of Forecourt, Group I.
- No. 7. Part of a thin, reddish flake with both ends missing. Edges show light trimming. Part of a scraper from Circle C.
 - No. 8. 'A small leaf-shaped flake, coarsely trimmed. From surface of Circle C.
- No. 9 & 10. Two tiny flakes from Cairn C5. No. 9 shows secondary work on hollow curve and No. 10 on point.
- No. 11. A microlith of leaf form, one edge lightly serrated. From surface of Circle C.

With the exception of No. 5 from the field all are typical of forms found in Neolithic habitation sites on the north coast.

GROUP 4.

Cairn C7. Separated from Circle E by 20 ft. and on its S.S.W. side stands a cairn 15 ft. in diameter, more steeply built than any yet examined in this complex and rising to 3 ft. above ground level (C7, Figs. 1 and 5). There is some evidence of its having been previously disturbed, probably when it first showed through the peat. As time was limited, it also was left for detailed inspection at a future date. From this cairn five small stones, in two lines, stretch out towards the uncut peat, three forming a line to the E. and two towards the S.E. Until the peat in these directions is removed their relation to other structures cannot be ascertained.

Focal Stone. One hundred and thirty feet south of the Cairn E lies a large flat stone which I have called the "Focal Stone" (642.2 ft. O.D.).

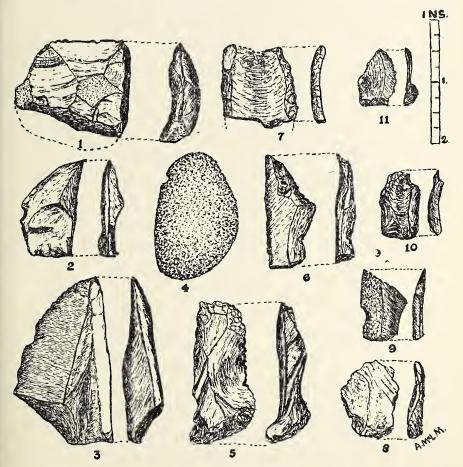


Fig. 9.—Beaghmore Flints.

From this run three lines of causeway with stones relatively larger than those in the causeway of Group 1 (Figs. 1 and 7). Disclosure of their full extent must await the turf cutters revealing spade; we removed just sufficient peat to permit a rough survey of the standing stones visible. Everything further west is unexplored; but several small cairns have already been exposed by turbary workers.

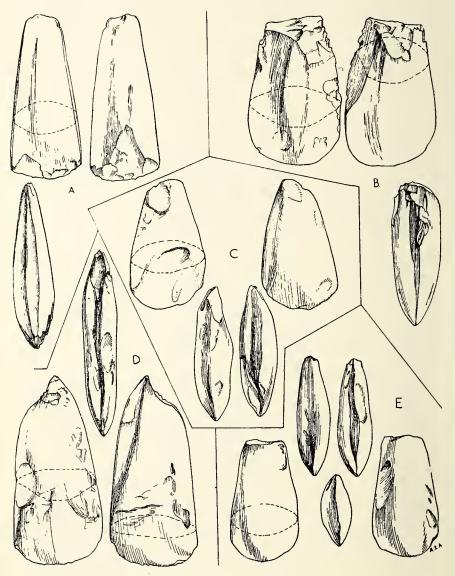


Fig. 10.—Beaghmore Axes.

Cairns C8 and C9. One part of the causeway going west for 21 ft. from the Focal Stone is more elaborately built than any part of it so far found; this portion finishes as a tiny round mound of stones that perhaps is a cairn (C8, Figs. 1 and 5). Three feet west of it is a small free-standing cairn (C9). From the Focal Stone the second section of the causeway runs in the direction of Circle E, while the third part leads up towards a high mound (Fig. 1), not yet uncovered.

High Mound. This mound (656 ft. O.D.) commands a view of the whole concentration. From its situation it might well have been the control centre of the various ceremonies that must have played an important part in the lives of the ancient hill dwellers who expended so much labour in erecting these extensive stone structures.

Circles F and G. (Figs. 1 and 7). West of the Focal Stone is the last group of circles, cairns and alignments, uncovered. Although this group differs much from the others described, it agrees with their main features in having a pair of circles, a small cairn and an oriented alignment. The circles are small.

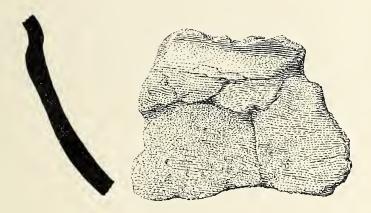


Fig. 11.—Pot-sherd of Neolithic A ware.

Circle F. This, the more southern one, consists of 33 stones and has a diameter of only 28 ft.

Circle G. The northern one is 32 ft. in diameter and consists of 25 stones. Two of them on the south side are large and form a portalled entrance, the only one in this complex, yet they may represent a two-stoned alignment.

Cairn (C10). This lies not quite between the circles, but a little to the west of them and has a diameter of only 6 ft.

Alignment (L9). This single alignment, starting from a point in front of the cairn, stretches for a distance of 68 ft. and is in line with the Cairn

C 11 (Fig. 1), 265 yards away to the east, outside the Ministry's boundary, and on the edge of the road that leads to the site. This distant cairn also has a single alignment running east, these two being the only single alignments in the complex. No evidence of the association of circles with this eastern cairn has been found. But as it stands by the edge of the road it is possible that they were once there; for the cairn itself was only saved from becoming road metal, after some of it had been removed, by our fortuitous intervention.

We have now reached the limit of the ground cleared by the excavation. Much remains to be done. To the south-west lies a large area that seemed, judging by the number of small cairns exposed by turbary operation, to have been used as a cemetery. None of these has been examined. Some have been disturbed, probably by peat-cutters.

DISCUSSION.

It may be assumed with some confidence, if less strongly than had all sections of the work been completed, that there were at least two phases in the early occupational history of Beaghmore. The finding of sherds of Neolithic A ware in hearth pits 10 ins. below the present floor level of Circle C; the evidence of local cultivation supplied by pollen analysis; and the Neolithic dyke or causeway below the stone alignments: all point to the use of the pit sites prior to the erection of the circles, and suggest settlement on these uplands of a small group of Windmill Hill people practising a primitive agriculture. That their occupation of the hearth pits was seasonal rather than permanent is suggested by the superimposed fireplaces.

Where only small patches of land were cultivated a suitable district could be used for food growing over a very long period without soil exhaustion. Plant disease and climatic change would be greater contributory causes of crop failure than loss of soil minerals from constant cropping.

We assume that the Beaghmore cultivators had abandoned the site before the circle builders raised their sanctuary over the causeway and hearths. The final filling of the hearth pits was only partly due to sediment carried by surface water; disturbance of the soil at the edge of one hearth pit points to the possibility of some filling-in by human agency—perhaps when the circles were being erected.

It is fortunate that this concentration of stone structures has been preserved for us by its covering of peat, but this same blanket seems to have destroyed the evidence that might have helped us clearly to identify the builders. We may visualise the earlier "Windmill Hill" branch of the Neolithic folk being supplanted by, or amalgamating with, a later group of mixed origin who built this ceremonial assembly site. Adjacent to other Windmill Hill sites in this area were others occupied by makers of Beaker pottery, mainly of "B" form. Whether these Beaker folk were simply

following the easy route inland of the earlier colonisers or were in process of assimilation with them remains unanswered.

The grouping of the structures apparently conforms to some plan. However inexplicable their origin or function, each of the ten alignments runs in an E.-W. direction. Since the ground slopes down towards the east, the cardinal point lies open to view from all of them. All lead up to within a few feet of a cairn. Six are paired. In Group 1 the space between cairn and alignment forms a neat forecourt; in the others this area is unenclosed and small. None of the alignments is long. A few are single, others double and one quadruple, but all agree in the common orientation.

One of the remarkable features of Group I is the arrangement of the alignments. One pair, forming the avenue, consists of a line of four tall pointed stones, with a companion line of twelve squat ones, about half the height of the others. This arrangement differs from that of the other double alignments, where a line of tall orthostats is paired with a long line of much smaller stones.

Another strange feature of Group 1 is the arrangement of the second pair of alignments. Each consists of small stones and each springs tangentially from a circle, the larger circle having a short alignment and the smaller a long one. Thus the two pairs of alignments form a quadruple arrangement of alternating long and short lines: on the N. is the long line of small stones from the Northern circle followed by the short one of four tall orthostats, then by the row of twelve smaller ones, and south of that by the short alignment of small stones from the southern circle. This whole group—circles, alignments, cairn and forecourt—appears to have been ceremonial in character.

Stone alignments are among the enigmas of prehistory. Their structural simplicity makes their interpretation no less difficult. Found in various parts of the world, they assume at Carnac an importance unequalled elsewhere. In Britain they seem to centre round Dartmoor, where single, double and treble examples are recorded. A few occur in Wales, and a few in the north of England; in Scotland examples have been found as far north as Sutherland and Callanish.

In the north of Ireland they are confined mainly to the hills of Derry and Tyrone, that is, the areas where circles are concentrated, with a few in Fermanagh. They are almost absent in the counties of Antrim, Armagh and Down; and if they exist in Donegal, they do not seem to have been recorded. In all, over forty have been listed in the north (including those consisting of only three or four large monoliths), but little has yet been done beyond recording them.

The Beaghmore cairns, like the circles, are comparatively small; they average about 10 ft. in diameter. A characteristic is the well-built revetments. Except for Cairn 1, with its apparent ritual chamber, and Cairn 4,

in which an oak stem was embedded—perhaps beside a spring of water—all we examined showed signs of having been used as repositories for the remains of the dead.

No free-standing circles occur; each being associated with one or more structures. In Circles A, B, C and D the monoliths of the ring are small; in Circles E, F. and G comparatively large. Only one, G, has a distinctive entrance; two large stones on its S.-E. side. This feature is absent from its companion circle F.

Circle E alone has the cairn inside the perimeter, but then one circle of the orthodox pair seems absent. It is also the only circle recorded in which the floor is studded with stones erected in position. Further work may throw some light on their significance; at present it appears as if passage through the circle was thus banned. The burial of cremated human remains, with seeming segregation of the head from the body, and its elevation to a platform or altar high above the torso, on a specially prepared matrix, is unique among burials.

Little evidence was obtained from the charcoal, which was mainly in a poor state of preservation. Hazel, which grows on poor soil and in exposed situations, predominated, though oak, birch and willow were identified.

Flints were few in number and, with one exception—from a cultivated field close to the site—can be paralleled from Neolithic settlements along the north coast.

Unfortunately only a few sherds of pottery were found. They represent parts of perhaps five vessels from the two hearths; none was obtained from the burial cairns. They were in a parlous state through immersion in peaty water and had to be removed and retained embedded in a layer of soil until completely dry. The paste, whether owing to the conditions pertaining in the bog or to the technique of manufacture, differed from the Neolithic A pottery at perhaps the nearest Neolithic settlement site in the hills—Gortcorbies, between the rivers Roe and Bann, some 7 miles from the sea and about 20 from Beaghmore. The Gortcorbies pottery had not been exposed to the destructive action of peat.

The polished stone axe head taken from the little cist in the cairn of Group 1 by a turf cutter prior to the excavation was the only one found on the site; but careful enquiry among the hill farmers produced five others found on the land by them. The axe from the cist, along with four of the others, was manufactured from porcellanite, a stone sited at Tievebulliagh Hill, near Cushendall, and at Rathlin Island on the N. coast. These stations are on the line of the shortest sea passage between Britain and Ireland; they have provided the material for many of the Irish axes. The sixth axe, of indurated siltstone, can be equated from the valley of the river Bann. The axe from the cist, with its broadly flattened, bevelled edges and oval profile, suggests a late rather than an early dating.

Beaghmore may be seen as a curious assembly of circles, cairns and alignments. Whether or not the stones were used for astronomical observation as well as for funeral and other purposes we may never know. The dominant feature of the alignments is that each stretches from a little cairn towards the east.

ACKNOWLEDGMENTS.

To Mr. McMahon of Beaghmore, owner of the land before the Government acquired it by purchase, I must first express my thanks for his permission to start the excavation, and for all the assistance he gave me in enlisting his neighbours' co-operation in the heavier field work and in many other ways.

I am deeply indebted to Dame Dehra Parker, D.B.E., for the encouragement she gave to the prosecution of the work.

My thanks are due to the many specialists who gave advice and submitted reports on the material found: Prof. V. G. Childe, who reported on the pottery sherds and supplied photographs and a drawing of re-constructed materials; the late Prof. T. W. Walmsley, who reported on the incinerated bones; Miss M. P. H. Kertland, who reported on the botanical material associated with the cremation; Mr. G. F. Mitchell, who made the pollen analysis; Mr. M. Y. Orr, who supplied reports on the charcoal fragments; Mrs. J. E. Morey of the Petrographical Department of the Geological Survey and Museum, who reported on the stone axes; and Prof. A. te Loake, who supplied translations.

I am greatly indebted to Miss C. Thompson, who gave much time to the typing of the report and who also gave a season's work at the site; to Mr. P. J. Harkin for his extensive work in surveying the site and in drawing the plans and sections; to Mr. R. J. C. Maxwell, who assisted me greatly in the final presentation of this paper; to the Forest Products Research Laboratory, who reported on the oak stem; to the Royal Navy for the aerial photographs; to Mr. A. E. Armstrong for the drawings of the axes; and to many others who in a lesser degree gave valuable information, advice and encouragement.

I must acknowledge also with thanks my great indebtedness to the assistants in the field—Messrs. G. Barnett, J. Cooke, W. Davison, P. Harkin, R. L. May, T. C. Pollock, Miss C. Thompson—whose unremitting labour, often in inclement weather and under the many physical discomforts inherent in the site, alone made the excavation possible. Of these, I owe a special debt of gratitude to Mr. George Barnett, who first pointed out the site. Throughout the years the excavation was in progress his never-failing assistance was an invaluable inspiration and help to us all. Lastly I must thank the local farmers who gave so freely of their time to labour for us.

BOTANICAL INVESTIGATIONS AT BEAGHMORE TD.

G. F. MITCHELL.

In 1947 Mr. May sent me some pollen-samples he had taken in Beaghmore Td., which lies at an altitude of 600′ O.D. (180 m.) on the border between Londonderry and Tyrone. The area is covered by blanket-bog; the underlying rocks are metamorphics of Pre-Cambrian age, and there are a number of small moraines in the vicinity. The samples came from a peat-cutting where the peat overlay the edge of one of the stone circles which Mr. May was investigating. The limited result of my examination of the samples has been published (Mitchell, 1951, p. 159).

In 1950 I visited the site with Mr. May, and collected a further series of pollen-samples from a peat-bank 12 yds. north of the flat stone at the north end of the causeway. The peat-stratigraphy here was as follows:—

- A. 0.90 cm. Fresh very fibrous peat with many roots and fibres of cotton grass (*Eriophorum*) and some fresh *Sphagnum*.
- B. 90-110 cm. Dark-brown fibrous peat, perhaps more humified, with some twigs of ling (Calluna).
- C. 110-155 cm. As before but more highly humified.
- D. 155-177 cm. Very highly humified amorphous peat.
- E. 177-183 cm. Gradual transition to
- F. 183 + cm. Sandy clay with stones.

It will be seen that the peat falls into three main layers with the humification decreasing from below upwards. As the base of the peat rests on a sand which in the vicinity of the stone circles contains pieces of pottery, the lower peat cannot be older than Sub-zone VIIb in age (Jessen, 1949). It is tempting to regard the change in humification at 155 cm. as the equivalent of RS C of Jessen which he dated to 500 B.C., and the change at 110 cm. as the equivalent of his RS B which I am now inclined to date at about 400 A.D.

It was not possible to count an adequate number of tree-pollens in the upper samples, and the diagram only covers the lower part of the profile. The diagram can only be described as disappointing. But it must be remembered that the pollen-rain was not coming from undisturbed woodland. The original woods had been cleared away by farming activities, which had probably left only scrub and hedgerow trees. When man abandoned the area, the trees had to compete not only with the spreading blanket-bog but also with the climatic conditions that were encouraging the growth of peat.

In preparing the diagram of the tree-pollens, the pollen of hazel (Corylus) has been included in the total of this type of pollen. It should be noted that in the tree-pollen diagram (Fig. 12 opposite) pollen of hazel rises in value from right to left, while the remaining pollens rise in value from left to right. In this way the proportion between the hazel pollen and all

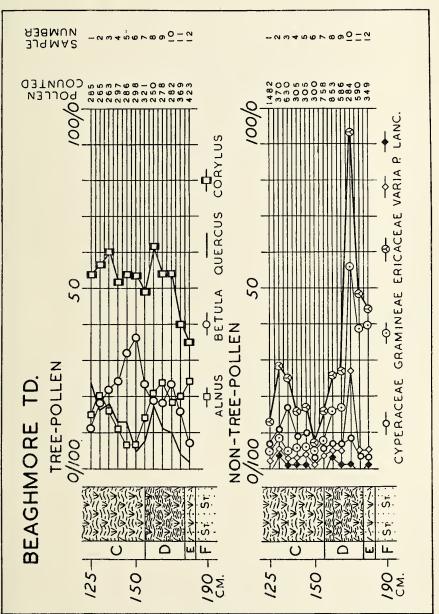


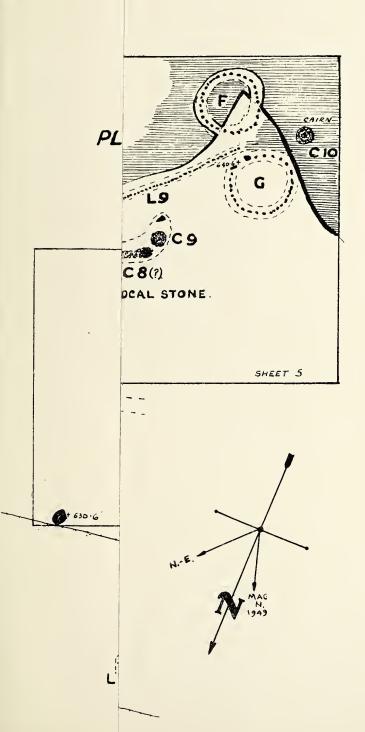
Fig. 12.

other tree-pollens can be seen at a glance. The absence of pollen of elm (Ulmus) and pine (Pinus) again suggests a date after the beginning of Sub-zone VIIb. One grain of beech (Fagus) was noted at 125 cm. and a second at 140 cm. The diagram of the non-tree-pollens is more interesting; again it should be noted that in this diagram (Fig. 12, p. 195) pollen of the ericaceous plants (heathers, ling, etc.) rises in value from left to right. Thus the proportion between the heather pollens and all other non-treepollens can be easily seen. From 165 cm. upwards pollen of the heathers is completely dominant. But below this level pollen of grasses and other herbs contribute a substantial amount of the non-tree-pollen. One can conclude that the lowest layers of the peat record the change-over from relatively dry-soil conditions carrying a varied plant-cover to the monotonous vegetation of the established blanket-bog. At this profile the base of the peat must be older than at the point where Mr. May collected the 1947 samples, as this change-over is not recorded in the diagram prepared from them (Mitchell, 1951, Pl. VI, No. 73). Pollens of weeds, including Plantain (Plantago lanceolata) and Dock (Rumex) are present even in the basal samples, and we may picture cultivation taking place in the vicinity of the site from Neolithic time onwards.

In 1949 I received a block of material, 25 cm. deep and 15 cm. square, taken below the base of the peat where a thin layer of material of vegetable origin appeared to separate two levels of occupation. The block had the following stratigraphy:—

- 3 cm. Dark-brown fine-grained peat with traces of small stones passing over into
- 6 cm. Grey-brown sand with small pebbles; the contents of humus was high above and diminished downwards; vertical roots could clearly be seen.
- 1 cm. Dark-brown amorphous humus. (This layer was rather irregular in level.)
- 15 cm. Grey-brown stony sand, its upper layers stained by iron oxide; the sand was pierced by vertical roots.

The layer of humus over a layer rich in iron oxide suggested that a soil profile had developed after the pottery had been introduced into the sand. In the lower sand I found pieces of hazel-nuts (Corylus avellana) and also charcoal of birch (Betula), oak (Quercus) and willow (Salix). Thus the sand below the peat must have been disturbed by early man to a considerable depth. In 1950 Mr. May sent me a further specimen in which the precipitation of iron was still more marked, the upper surface of the lower sand being cemented to an iron-pan about 5 cm. thick with looser rust-yellow material below. Roots of plants which had grown subsequent to the formation of the pan (the plants which initiated the formation of peat?) had not been able to pierce the pan, but had ramified over its surface, producing a dense mat of horizontal roots ca. 1 cm. thick.

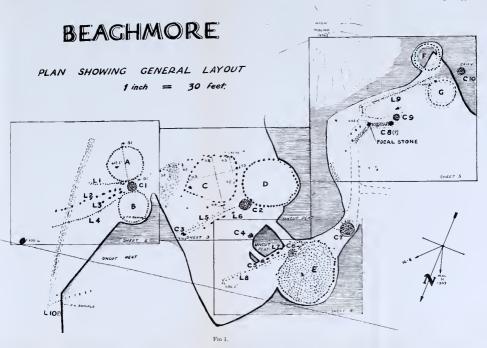


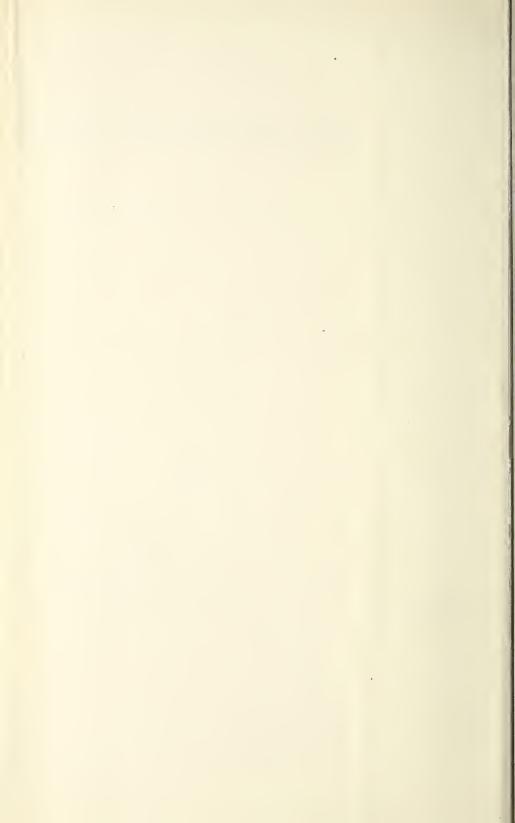
other tree-pollens can be seen at a glance. The absence of pollen of elm (Ulmus) and pine (Pinus) again suggests a date after the beginning of Sub-zone VIIb. One grain of beech (Fagus) was noted at 125 cm. and a second at 140 cm. The diagram of the non-tree-pollens is more interesting; again it should be noted that in this diagram (Fig. 12, p. 195) pollen of the ericaceous plants (heathers, ling, etc.) rises in value from left to right. Thus the proportion between the heather pollens and all other non-treepollens can be easily seen. From 165 cm. upwards pollen of the heathers is completely dominant. But below this level pollen of grasses and other herbs contribute a substantial amount of the non-tree-pollen. One can conclude that the lowest layers of the peat record the change-over from relatively dry-soil conditions carrying a varied plant-cover to the monotonous vegetation of the established blanket-bog. At this profile the base of the peat must be older than at the point where Mr. May collected the 1947 samples, as this change-over is not recorded in the diagram prepared from them (Mitchell, 1951, Pl. VI, No. 73). Pollens of weeds, including Plantain (Plantago lanceolata) and Dock (Rumex) are present even in the basal samples, and we may picture cultivation taking place in the vicinity of the site from Neolithic time onwards.

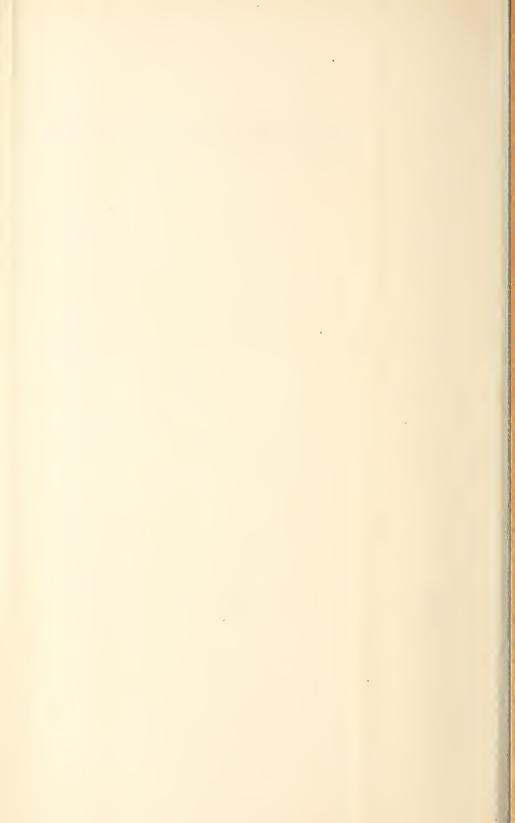
In 1949 I received a block of material, 25 cm. deep and 15 cm. square, taken below the base of the peat where a thin layer of material of vegetable origin appeared to separate two levels of occupation. The block had the following stratigraphy:—

- 3 cm. Dark-brown fine-grained peat with traces of small stones passing over into
- 6 cm. Grey-brown sand with small pebbles; the contents of humus was high above and diminished downwards; vertical roots could clearly be seen.
- 1 cm. Dark-brown amorphous humus. (This layer was rather irregular in level.)
- 15 cm. Grey-brown stony sand, its upper layers stained by iron oxide; the sand was pierced by vertical roots.

The layer of humus over a layer rich in iron oxide suggested that a soil profile had developed after the pottery had been introduced into the sand. In the lower sand I found pieces of hazel-nuts (Corylus avellana) and also charcoal of birch (Betula), oak (Quercus) and willow (Salix). Thus the sand below the peat must have been disturbed by early man to a considerable depth. In 1950 Mr. May sent me a further specimen in which the precipitation of iron was still more marked, the upper surface of the lower sand being cemented to an iron-pan about 5 cm. thick with looser rust-yellow material below. Roots of plants which had grown subsequent to the formation of the pan (the plants which initiated the formation of peat?) had not been able to pierce the pan, but had ramified over its surface, producing a dense mat of horizontal roots ca. 1 cm. thick.







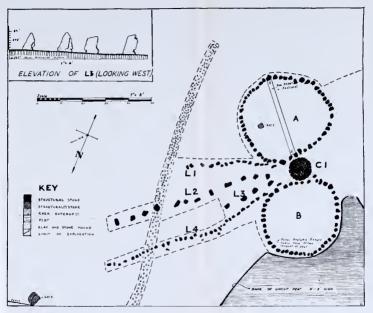
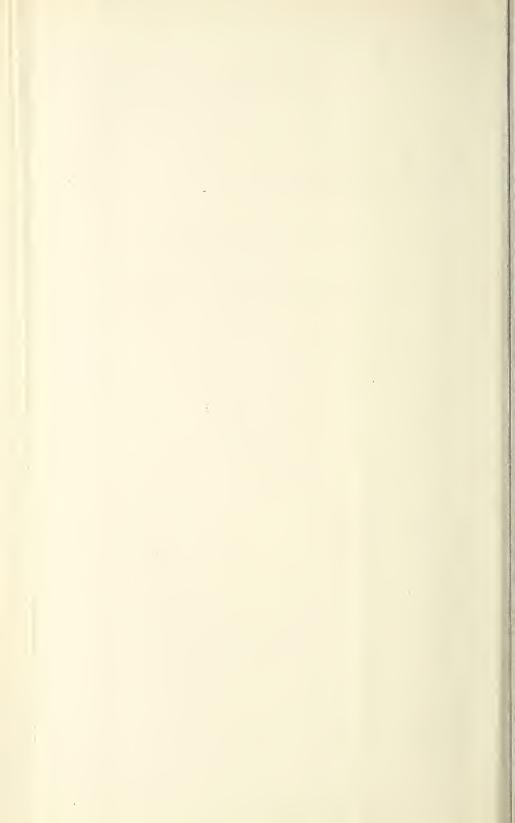
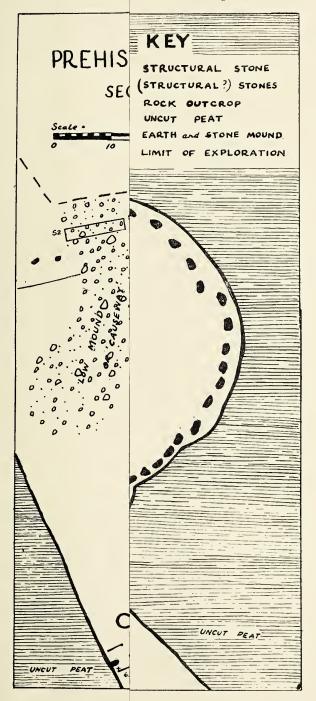
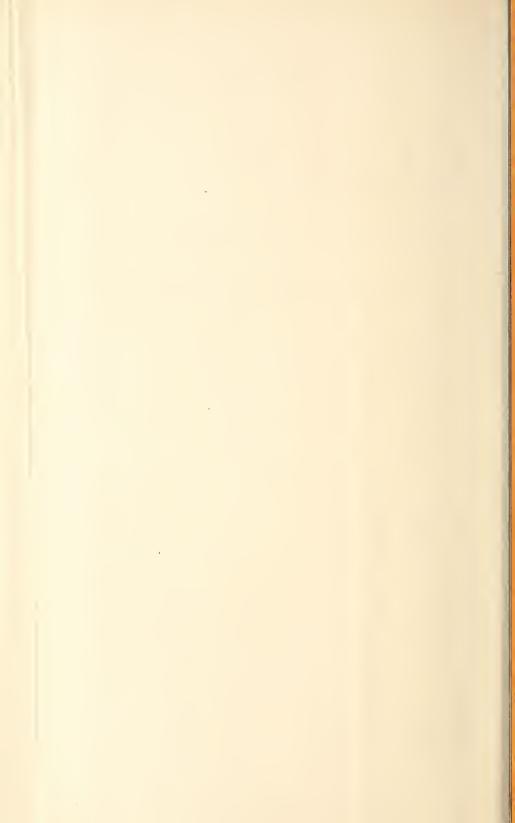


Fig. 2.—Beaghmore First group of circles.







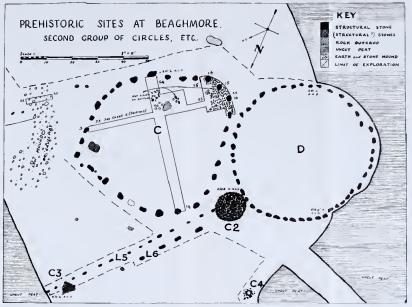
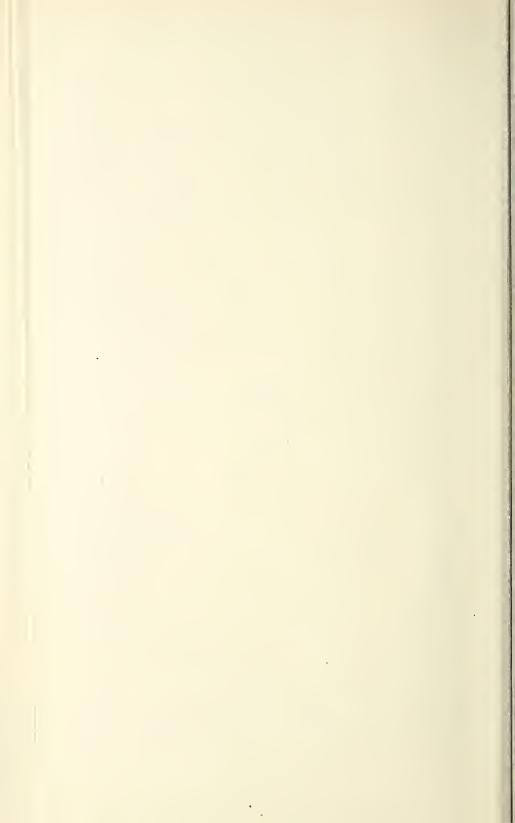
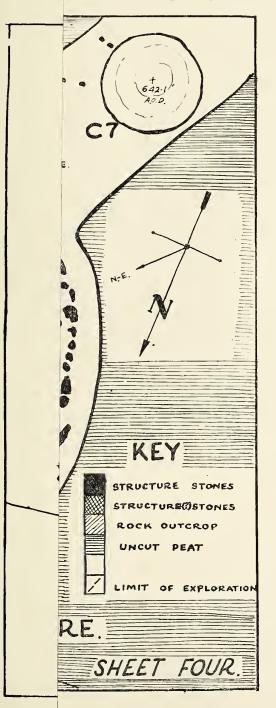
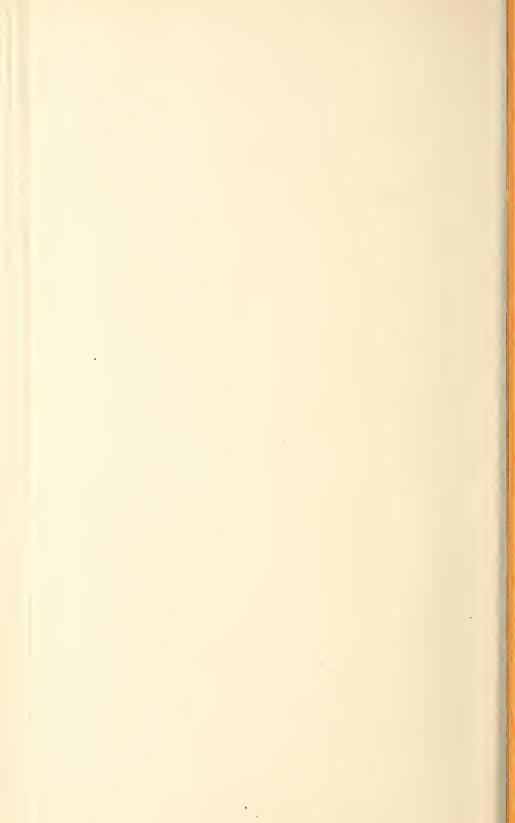
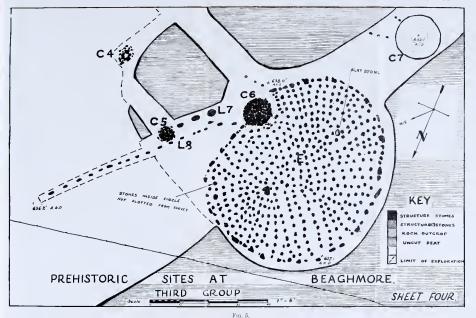


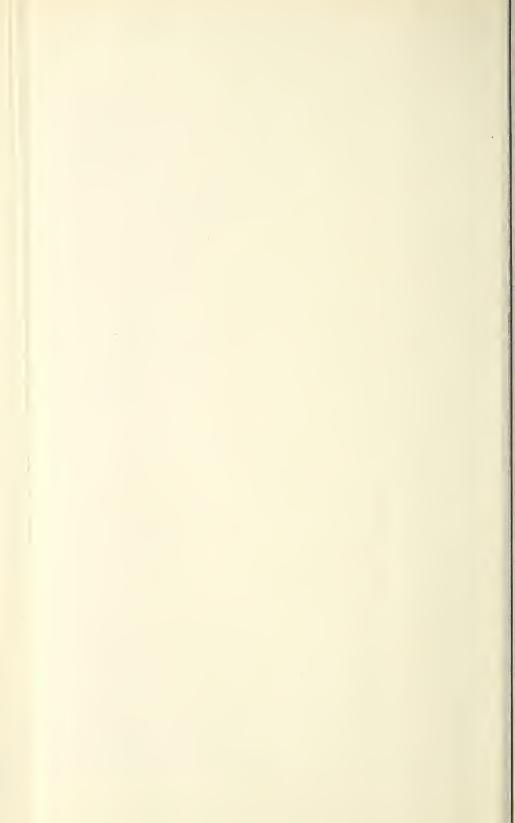
Fig. 3.





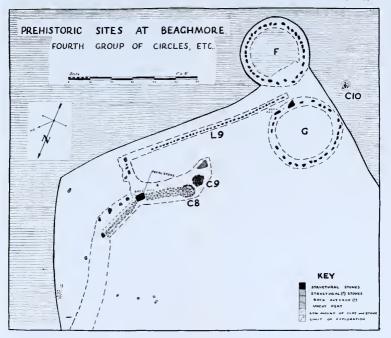




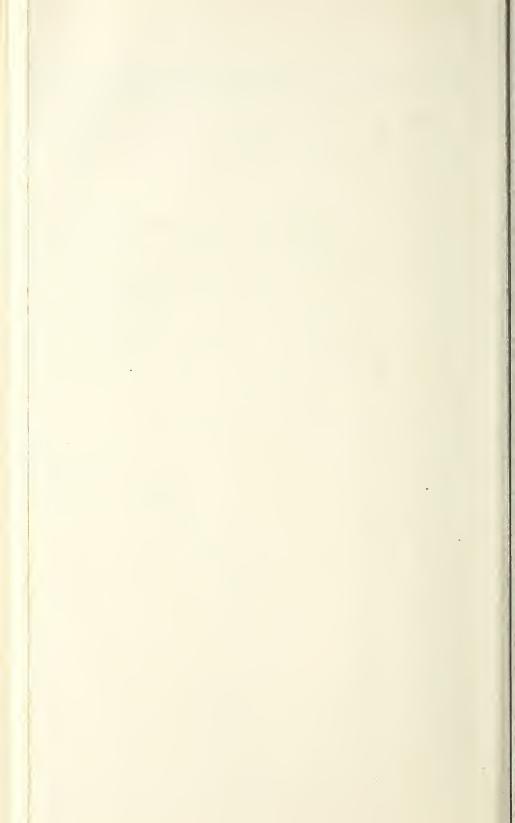




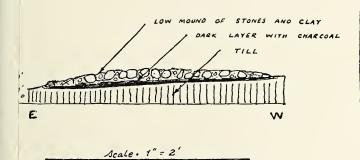




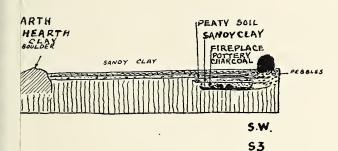
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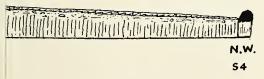


CTION THROUGH CAUSEWAY (SHEET 3)

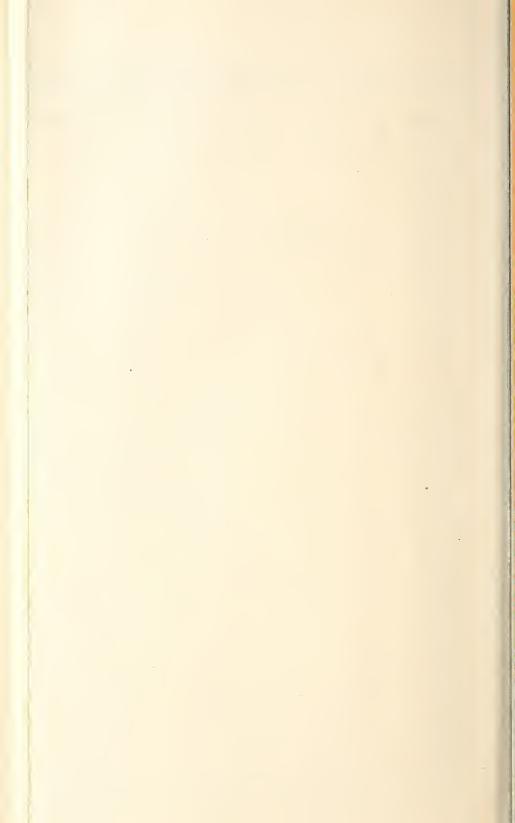


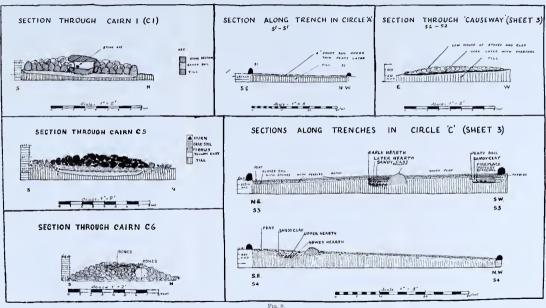
CIRCLE 'C' (SHEET 3)

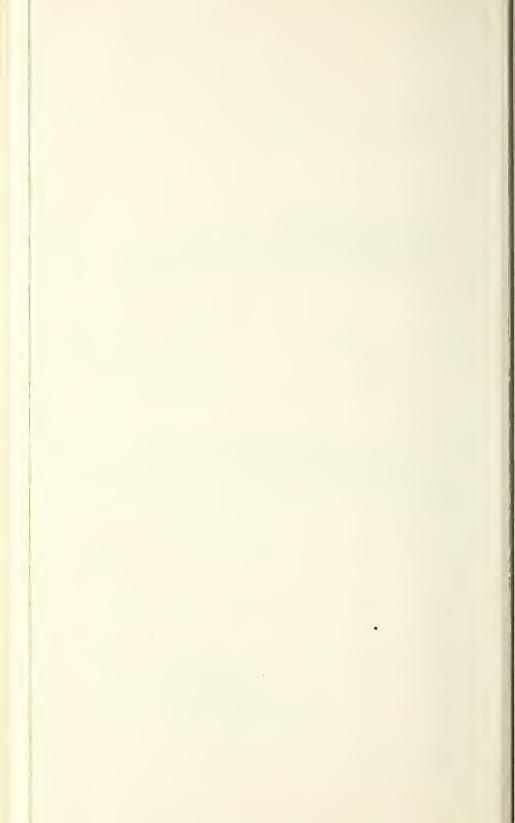












Though I make no claim to be an expert on soils, I am of the opinion that prehistoric man found the Beaghmore area free from peat, and that he occupied the light sandy soil of these uplands. In the course of his operations pieces of pottery, charcoal and hazel-nuts became buried in the soil. The light soil then became leached, and deposition of iron took place. This in turn may have impeded drainage with the result that water-logging and peat-formation ensued. Or the leaching and initiation of peat-formation may have been due to a deterioration of climate. But I think we may picture exhaustion of the soil, and the formation of peat making the Beaghmore area less attractive to early man.

Both in the underlying soil conditions and in the stratigraphy of the overlying blanket-bog peat, the sites at Beaghmore and at Goodland Td., Co. Antrim (*Mitchell*, 1951, p. 157) resemble one another closely. In each case there is evidence of soil tilled in antiquity, and also evidence of the progressive smothering of an open countryside by a deep growth of peat. Pollen-analysis has not given satisfactory evidence of age; perhaps we may look forward to radio-carbon estimates of age.

Jessen, K. 1949.

Mitchell, G. F. 1951.

Studies in Late Quaternary Deposits and Flora-History of Ireland. Proc. Roy. Ir. Acad. LII, B, No. 54. Studies in Irish Quaternary Deposits No. 7. Proc. Roy. Ir. Acad., LIII, B. No. 11.

MISCELLANEA

The Saint Johnstown Head.

In this Journal¹ I published from St. Johnstown an ovoid boulder regularly shaped by pocking and with the incised features of a human face. I was at the time unable to quote a parallel to this curious stone; but recently in the museum at Tunis I saw a pocked ovoid stone, of whose peculiar appearance the publication² gives little idea. It is incised with facial features, less crudely than the St. Johnstown head. Within a piriform border, to which are attached two drooping ears, are eyes, nose and mouth, outlined by grooves without relief, but not hollowed as on the St. Johnstown stone.

M. Gilbert Picard has most kindly sent me details of the Tunis betyl, which is of unknown provenance, probably from Carthage. It was received by the museum from a private collection. It is inscribed with a Punic inscription which is illegible. Miss S. Benton has given me great assistance in looking up references which are not available in Africa. She has referred in particular to Delattre³, who compares the stone to a painted ostrich-egg of Corinthian style (early sixth century B.C.). Though the comparison is not close, it is suggestive that both the stones under discussion resemble ostrich-eggs in shape; and it is only on such material that the unrealistic avoidance of protrusions is likely to have developed.

M. Picard informs me that other betyls have been discovered at the taphet of Salammbo, Carthage. Some are sea-rolled stones and stones in the form of a sugar loaf, others cippi sculptured in low relief with geometrical forms. Apparently there are no exact parallels to the ostrich-egg shape.

There can be no doubt that the St. Johnstown head is archaic Punic, probably not later than the sixth century. Though its place of discovery is unknown, I think it improbable that it was brought to Ireland by any recent traveller; it is more likely to be evidence of ancient contact. There are literary references to early trade along the Atlantic, in particular the primitive portions of Avienus' Ora Maritima; and though the picture of long-robed Phoenicians visiting our shores is now regarded with suspicion, occasional trade-objects, especially of Mycenean date, have been found in Britain. The British axes from the Huelva hoard are indications of the return-trade. The discovery, however, of what seems to be a Carthaginian cult-object not only suggests that the trade was direct, rather than through

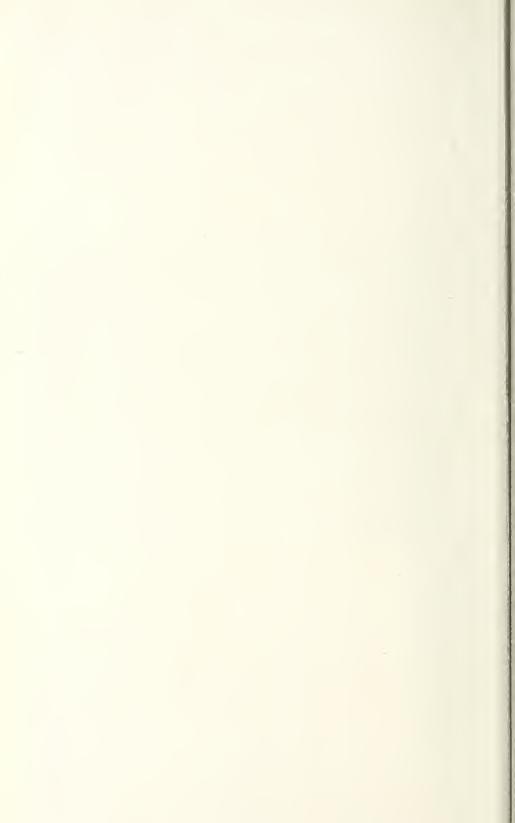
^{1 (1947),} p. 157 and pl. XLI.

² Lapeyre & Pellegrin, Carthage punique, pl. XI and p. 229.

³ Fouilles de la Necropole punique, 1895.



Tomb of Archbishop Butler (c. 1553) E side. North Transept, Cashel Cathedral.



the medium of Gades, but may indicate a settlement in the estuary of the Foyle. That traders in small ships would have passed Derry and sailed to nearly the tidal limit need not be surprising; and it remains to discover the settlement to which they came.

O. DAVIES.

The Tomb of Archbishop Edmund Butler at Cashel.

In his interesting article on "Fishes in Irish Heraldry" Dr. Went illustrates (Cork Archaeological Journal, Vol. VII, 1952, p. 115 and pl. x.b.) a slab from a tomb now fixed to the wall at the end of the north transept of Cashel Cathedral. It has often erroneously been stated that this is the tomb of Edmund Butler, Archbishop of Cashel, writers leaping to this conclusion merely from the facts that he was of an illegitimate Butler line, and that the tomb bears a Butler coat differenced by a bend sinister. This tomb has nothing, however, to do with the Archbishop. Even if, as has been suggested, his mother had been a Hackett, it would not have been usual to place the mothers arms on a tomb, nor, supposing this did occur, would the arrangement on this memorial be heraldically correct. The Hackett coat is on the dexter side, and is evidently the arms of a Hackett male who married a Butler female of an illegitimate line.

In any case, the slab is evidently considerably earlier than the period of the Archbishop, and once no doubt formed part of a large double tomb commemorating a man and his wife whose effigies would have occupied the usual positions on top. The side slabs would have been decorated with saints or figures of the apostles similar to the carvings on the wall next to it, if indeed these are not, as is probable, actually the sides of the same tomb. The central figure between the coats of arms may be the commemorated man's patron, in which case it would give a clue to his christian name as it was very common to place a figure of the patron saint in the place of honour. The saint represented is St. Thomas of Canterbury, not St. Patrick as has been supposed. The other two saints on the slab are St. Michael and St. John Baptist.

Fragments of Archbishop Edmund Butler's tomb do exist, although they have not been hitherto identified. Some of the fragments are fixed to the East wall of the North transept on the pier between the two chapels. The arms are quite clear. The Butler coat is shown without any difference of a bar sinister. The Shield has imposed upon it in saltire the Archbishop's emblems, his cross staff and a crozier with a mitre above, leaving no doubt as to the person for whom the tomb was made. The archbishop died in 1553, and the style of the carving which is renaissance in character would fit in perfectly with the date of his death. The curious slabs nearby carved with the symbols of the four evangelists probably originally formed part of this same tomb.

J. Hunt.

Bodenstown, Co. Kildare.

It is in the graveyard of this parish that Wolfe Tone is buried, and it is famous as a place of national pilgrimage. What is the origin of the name Bodenstown? Hamilton in his paper on "The Names of the Baronies and Parishes in County Kildare", published in the Journal of the Kildare Archaeological Society (vol. viii, 1916, p. 263) says "On the analogy of Ballyboden, in County Dublin, and Ballyvodane, in County Cork, this name seems to be Baile Bhuadháin or Baile Ui Bhuadháin, Buadhán's or O Buadháin's town". He only quotes one old form of the name: "on Petty's map the name is spelled Bowdingston". Publications which have appeared since he wrote give us some more information.

In the recently published Civil Survey of Co. Kildare (1654-5) the name is written Bowdingstowne. An Inquisition of 1606 calls it Bowdenston, and states that the church was included among the possessions of the Abbey of Connall. In Mr. Newport B. White's Irish Monastic Possessions we find that the Priory of Connall, in 1540, at the time of its dissolution, owned the rectory of Bawdeynston, and that the Prior of Connall paid a pension of 13/4 to the Prior of the Hospital of Kilmainham out of the parish church of Bowdanston, or Bowdingeston. These are old spellings of Bodenstown, and are so indexed by Mr. White.

A document in Alen's Register carries us two centuries further back. In 1523 an ancient roll relating to the possessions of the Prior and Convent of the house of Blessed Mary of Connalle was exhibited to the Archdeacon of Dublin, and a certified copy of it was made. The roll was dated 1352, and it declared that the Prior and Convent were in canonical possession of a number of churches in Kildare diocese, which are named. One of these churches is called Villa Baledwenii, Villa Baldewynii, or Villa Baldewynye, for which Mr. McNeill gives the anglicised form Baldwinstown. This is of course correct as a translation of the Latin name, but there is no place called Baldwinstown in Kildare diocese. It is evidently the same as the place called Bawdeynston in 1540, that is, the present Bodenstown.

It is clear therefore that the name Bodenstown originated in the same way as the names of the adjoining parishes of Sherlockstown and Kerdiffstown: like them, it took its name from one of the early Anglo-Norman settlers in the area. I have not been able to trace the Baldwin after whom the place was named, but there was a Baldewin de Keirmerdin who owned land not far away at the beginning of the thirteenth century. This appears from a grant of land, of which a copy has been preserved in the Register of the Abbey of St. Thomas, Dublin (Gilbert's edition, p. 76). By this grant Adam de Hereford gave to the Abbey the land which had been in dispute between him and Thomas de Hereford and Baldewin de Keirmerdin near Hutrard. Hutrard, now Oughterard, belonged to Adam de Hereford, and Thomas de Hereford owned the adjoining land of Kill. The boundary between Oughterard and Kill is about 3 miles east of Bodenstown. As Balde-

win de Keirmerdin also had some claim to the disputed property, he presumably had land adjoining it, but there is nothing to show exactly where his land was. The family of Keirmerdin, or Carmarthen, appear to have been followers of the de Herefords, and one Peter de Kaermerdin granted the church of Clonaghlis, which is near Oughterard, to St. Thomas's Abbey. Except in the above grant I have not found any information about Baldewin de Keirmerdin in the Irish records.

L. PRICE.

OBITUARY

ROBERT LLOYD PRAEGER—1865-1953.

Robert Lloyd Praeger was born in 1865 and was at a very early age attracted to the studies in Natural History at which he spent his long life. His earliest published work was botanical and it is as a botanist that he is chiefly remembered today. His first important work was, however, a study in Quaternary Geology.

Praeger was trained as an engineer leaving Queen's College, Belfast, in 1887, with the degree of Bachelor in Engineering. He was appointed to a post on the engineering staff during the construction of the Alexandra Dock. This gave Praeger his chance which he took with an industry and vision which marked all his work. The great sections exposed during the excavations enabled him to examine and interpret the deposits underlying Belfast Lough. He had already studied the mollusca of the area and he used his knowledge under the guidance of the northern naturalist S. A. Stewart, to prepare and ultimately to publish a remarkable paper on the estuarine clays. He was only 27 when this work, with five years of research behind it, was published in the Proceedings of the Royal Irish Academy. In the same year he was elected a Member of the Academy.

He had by this time relinquished his profession and accepted a post in the National Library. His interest in Quaternary geology was still great and it was his knowledge of the deposits of the raised beaches of the north east of Ireland which led to his long association with archaeological work. With George Coffey he examined the implement-bearing gravels, with Coffey, Scharff and others he took part in cave excavation. In his later years he shared with R. A. S. Macalister the responsibility for several important excavations. Praeger never claimed to be an antiquary but there is no doubt that his special knowledge, his organising ability, his observant eye and his critical sense of scientific values added greatly to the merit of all the work with which he was associated.

Two qualities enabled Preager to carry out the enormous mass of varied work which he accomplished. He was a prodigious worker and a brilliant organiser. When it is remembered that for the greater part of his life he could pursue the activities which made him famous in his spare time only one realises how fully he must have employed every minute. We know and recognise the scope and quality of his own work from what he published but it is easy to forget how he inspired and made smooth the work of others. It would be hard to over-rate the importance of the effect of the triennial conferences of the Irish Field Club Union, the Lambay Survey and the great Clare Island Survey, all of which were conceived and organised by Doctor Praeger.

Little mention has been made of his botanical work in this note. It may be taken that he was among the greatest, if not the greatest, of those who worked in Ireland. It was through his botanical interests and his intimate knowledge of European trends that Praeger made his last contribution to scientific archaeology in Ireland by the foundation of the Committee of Quaternary Research in Ireland, thereby introducing into the country modern methods for the investigation of prehistoric problems.

Praeger, although genial, was a reserved man and his withdrawn and sometimes even gruff manner was a cover for great generosity. It is impossible to assess what his support and encouragement has meant to many young scientists in their work. It was one of his most charming qualities that as he grew old he used his immense prestige and experience to help others to do the work he would have loved to have done himself. He was without envy in scientific matters and was always ready to help the advance of knowledge. It will never be known, nor would he have wished it known, how many he helped in a material way.

Praeger was so familiar a figure and some of his work was done so long ago that many do not, perhaps, appreciate the extent of his achievement: even those who knew him well have their respect increased when the sad necessity of gathering together their knowledge of him for his obituary notice makes them realise the full magnitude of his stature.

A. Farrington.

NOTICES OF BOOKS.

The Early Christian Monuments of Wales. By V. E. Nash-Williams. Pp. xxiii, 258, pls. 71. Cardiff, University of Wales, 1950. £4 4s. 0d.

This excellent book affords a scholarly, concise, and well-documented conspectus of Welsh Christian monuments from the fifth to the thirteenth centuries. It is splendidly produced with more than two hundred text figures and seventy-one plates, illustrating over three hundred of the four hundred odd monuments listed, as well as photographs of decorative and iconographical details. Four distribution maps, one for each of the chronological periods into which Dr. Nash-Williams divides his material; two appendices providing analyses of the calligraphy of the inscriptions and of the decorative and representational forms employed; and, finally, three unusually comprehensive indexes worthily complete the work.

In the first category Dr. Nash-Williams includes a number of simple Ogham and Latin inscribed stones which he considers are to be ascribed to the fifth-seventh centuries. The Ogham inscriptions are in Gaelic and are considered by Dr. Nash-Williams to be linked with an infiltration into Wales of Irish colonists in the fifth and following centuries, while the Latin inscriptions are akin to those found in Gaul and the Western Roman Empire and are taken to indicate direct and sustained intercourse between Wales and Gaul in the sub-Roman period.

The monuments in the second group—Cross decorated stones ascribed to the seventh—ninth centuries are almost devoid of inscriptions, a feature which, in Dr. Nash-Williams' opinion, points to the final collapse of the Roman epigraphic tradition and also, he thinks, to the Gaulish connections having lapsed. The stones are decorated with incised or lightly carved ornamental crosses which appear under a wide variety of forms; and in the few instances where there is an inscription, the language, except for one example in Welsh, is Latin, although the formulae used are mainly Celtic and very brief. Four elaborate inscriptions which occur on stones in this group seem to show, however, both Italo-Gaulish and Irish manuscript influences. The distribution of these cross-decorated slabs is predominantly southern, indicating the continued and increased influence of Ireland.

The monuments comprising Dr. Nash-Williams' third group for which he ascribes a chronological range from the ninth to the end of the eleventh centuries, represent, in his view, the culmination of Welsh Early Christian Art. On these the cross may be treated in the round as a free-standing monument or, in relief, as a shaped cross slab, and often in both forms receives elaborate decoration. Many have comparatively lengthy memorial inscriptions and Alpha and Omega, IHC and XPC appear either in Greek form or in Latin, one monument (dated as late as ca. 1080) having the Greek monogram. monuments are concentrated either in the north, i.e. Anglesey-Carnarvonshire, or, very densely, in the south—in Pembroke and Glamorganshire. In Dr. Nash-Williams' opinion this florescence of art in Wales may be deemed a consequence of the arrival in the country of craftsmen from Ireland, Northumbria and Man, possibly as refugees from the disturbances of the Viking wars and invasions, and, more remotely, due to re-established contact between Wales and England. Late in the period allotted to these monuments he discerns the stylistic influences due to Scandinavian art. It may be said that these Welsh sculptors do not really afford evidence for the activities of Irish stone carvers of the ninth and tenth centuries, as the absence on them of any substantial Carolingian influence, or a narrative system of figural decoration, renders them noticably different from the major part of Irish sculpture attributed to these centuries.

With the fourth and last group a handful of miscellaneous monuments, ranging in date from the eleventh to the thirteenth centuries, is listed. These comprise pillarstones, grave-slabs, coped stones, fonts and a sundial. The lettering of the inscriptions and the ornament of the group are poor, and according to Dr. Nash-Williams, this latest phase is one marked by artistic sterility and technical ineptitude.

From the point of view of artistic interest the monuments of the third group merit best our attention. On these appears a repertory of decorative designs which include interlacings, variants of Greek frets, acanthus and vine scrolls and stylised animal motives. Figural work is rare and when included consists mainly of representations of the Crucifixion in generally elementary form, of orantes, of horizontal flying angels (no more than pathetic little travesties of the heavenly beings at Bradford-on-Avon or Winterbourne Steepleton), of some isolated figures, possibly saints, and of one or two scenes of doubtful interpretation.. There are a few sculptures which are conspicuous for the skill and competence of their execution: for example the Crucifixion (No. 207, Llangan, Glam.) with spear and sponge-bearer placed in the heterodox Gallic-Irish way, and which derived possibly from some metal work such as a pax: while the panel showing the socalled "Temptation of St. Anthony" (No. 38, Penmon, Anglesey) is remarkably similar to the renderings on Castledermot N. and S. Crosses, although nothing else on this monument is reminiscent of Irish work. On the whole, however, for us in Ireland, the impression produced by the great bulk of the Welsh work is one of inadequacy. impression emerges that the "source" material was limited in range and possibly also in time; further, to judge from the curiously flattened and stylised two-dimensional treatment of much of the work, such sources were in the main, manuscript illumination, which in itself was not of very high quality. The relatively early nature of the source material seems indicated by such features as the single figures of orantes (one of which has interesting similarities with the Durrow St. Matthew miniature) which appear very rarely in Christian art after the seventh century and similarly the motif of a decorative cross without the figure of the Crucified, but flanked by figures, reasonably identified as the Virgin and St. John Theologos, (e.g. No. 234, Margam; No. 250, Nash, Glam.) seems close to the earlier type of crucifixion which preceded the full narrative rendering of the seventh and later centuries.

Dr. Nash-Williams repeatedly refers to Irish connections and influences in the art of Wales, but in truth these are not very apparent; for the majority of the monuments resemble rather some of the later crosses of Northumbria and the work and decoration of others recall some Manx monuments, especially those associated with Gaut Bjarnersen. However, if we are to trace the Irish elements in Welsh art we can scarcely ignore the historic accounts of the contacts between the two countries. From the Lives of Irish Saints we know of the esteem with which many Welsh Saints were regarded; such were Cadoc the Wise in his house at Llangarvan and Illtud, egregius magister Britannorum, at Inys Pyr: it is of interest, too, to note what a number of Irish saints from S.-E. Leinster are said to have journeyed to the renowned Dewi Sant at Mynyw for learning These include Maedog of Ferns, Modomnac of Tybroughney, and holy instruction. Scuithin of Sliabmairge and Moling from the banks of the Barrow. Again from the seventh century there was that reciprocal movement to Ireland of the numerous Welsh students. Even if the literary sources must be regarded as semi-fabulous, it remains a fact that it is amongst the monuments of S.-E. Leinster that the nearest parallels to the Welsh work are to be found. Here are the clumsy top-heavy ringheads, often imperforate, as at Rathvilly or Old Leighlin: the poorly modelled crncified figure on the illdefined crosshead as at Rathmichael, Co. Dublin, or Fassaroe, Co. Wicklow. For comparison with No. 295, Meifod, Montgomery: the flabby network interlace at Newton, Co. Carlow which is so similar to that on No. 185, Diserth, Flintshire: the frets of the S. Cross at Ferns which are close to those on No. 129, Silian, Cardigan: and for a final comparison there is the Christ with the matchstick legs on the imperforate S. Cross at Graiguenamanagh, surmounting a stunted shaft decorated with knotwork; a monument which is, if anything, worse than No. 411 Llanveynoe, Herefordshire.

The value of such comparisons as these is, of course, considerably impaired by the general uncertainty of the dating of the Irish work and it is to be suspected that Dr. Nash-Williams' proposed chronology will itself not prove entirely acceptable, but the possibilities of sound investigation and correlation of the monuments both in Ireland and Wales are greatly enhanced by the appearance of this book. By bringing into perspective the hitherto least known contribution of the Celtic peoples to the art of the Early Christian West, Dr. Nash-Williams has produced a work which is indeed worthy to rank with that of Allen and Anderson for Scotland and of Dr. Françoise Henry for Ireland.

H. M. R.

Archaeological Bulletin for Great Britain & Ireland, 1948-49. Published by the Council for British Archaeology. 1952. 4/6.

This issue deals with archaeological and early historical material referred to in books published or reviewed in 1948 and 1949 and in Journals published between mid-1948 and early 1950. The bibliography on pages 70 to 102 lists the publications under authors' names, giving each publication a serial number. Pages 1 to 69 contain a topographical index covering England, Ireland, Scotland and Wales by counties; in this materials such as pottery, querns, glass, etc., and subjects such as surveys, architecture, roads, and so on, are listed, each item showing in bold type the serial number of the publication where the description is to be found. This topographical index also contains some references to reports by individuals, apparently unpublished; it would be useful if the reader was told to whom he should refer in order to get further particulars about these: for example, Iron Age pottery, and a comb (Roman or Saxon), found at Tichborne Down House, Alresford, Hampshire (pp. 16, 17). Every archaeologist and historian must read the Bulletin to see what has been written on his particular subject; no one could give up the time to going through the mass of publications that appear each year. Quite unexpected things often turn up, like the horn knife handle with an Ogham inscription (p. 30), from Weeting in Norfolk; this is described as "probably of Pictish origin".

L. P.

PROCEEDINGS

Meetings of the Society were held as follows: ---

1.—January 27, 1953.—Annual General Meeting at the Society's House, Dublin, at 8 p.m. Chairman: District Justice Liam Price, President.

No other nominations having been received the Chairman declared the following elected to their respective offices:—

President.—Professor Seán P. Ó Ríordáin, Ph.D., D.Litt., Fellow.

Vice-President for Leinster .- G. F. MITCHELL, F.T.C.D., Fellow.

Hon. General Secretary .- A. T. Lucas, Member.

Hon. Treasurers.—John Maher, Member, and B. J. Cantwell, Member.

Members of Council.—Senator E. A. Maguire, Fellow, Dr. Françoise Henry, Hon. Fellow, and Brian Mac Giolla Phádraig, Member.

On the recommendation of the Council, G. B. Symes, Member, and R. E. Cross, Member, were appointed Hon. Auditors for the year 1953.

In recognition of their long and outstanding services in the cause of Irish archaeology, Dr. T. B. Costello, Vice-President for Connacht, and Patrick Lyons, Fellow, were elected Honorary Life Fellows.

One Fellow and five Members were added to the Society's roll.

The Report of the Council for 1952 was read and ordered to be printed in the Journal.

DISTRICT JUSTICE LIAM PRICE lectured on "Powerscourt and the District of Fercullen in the Sixteenth Century."

- 2.—March 3, 1953.—Meeting at the Society's House at 8 p.m. Chairman: Professor Seán P. O Ríordáin, President. Reverend Professor Aubrey Gwynn, S.J., Member, read a paper entitled "The Early History of St. Thomas's Abbey, Dublin."
- 3.—April 21, 1953.—Quarterly Meeting at the Society's House at 8 p.m. Chairman: Professor Seán P. Ó Ríordáin, President. Twenty Members were added to the Society's roll.

The Report of the Hon. Auditors for 1952 was read and adopted.

The following were appointed to membership of the Nominating Committee for the Cultural and Educational Panel of Seanad Eireann:—Professor Seán P. O Ríordáin, President, A. T. Lucas, Hon. General

Secretary, John Maher and B. J. Cantwell, Hon. Treasurers, and H. E. Kilbride-Jones, Hon. Editor.

An illustrated lecture entitled "The O'Dea Mitre and Crozier and the Arthur Cross" was delivered by Mr. John Hunt, Member.

4.—June 2, 1953.—Summer Quarterly Meeting in the Dairy Science Lecture Theatre, University College, Cork, at 8 p.m. (by kind permission of the President, University College, Cork). Chairman: Professor Seán P. O Ríordáin, President. Two Fellows and five Members were added to the Society's roll. Mr. John T. Collins, Member of the Cork Historical and Archaeological Society, and Professor M. J. O'Kelly, Member, lectured on the sites to be visited during the course of the Summer Excursion.

The Spring Excursion was held on Saturday, April 25, 1953, to Howth and the Summer Excursion from June 2-6, 1953, with Cork City as centre.

INDEX

TO VOLUME LXXXIII.

	1	PAGE	PAGE
Abbeyleix House		138	Ginkel 59, 62, 65, 68, 71, 75, 80
Annaghmore, near Gorey		46	Glastonbury 97
Athlone, Siege of		58	Glastonbury 97 Grace, Col. Richard 58, 61, 64, 80
, 0			
Ballyduff, cist grave from		49	History of the Corporation
Balyteneth		123	Fishery 164
Balyteneth Bann flakes		94	Horizontal Mill in Ireland 1
Beaghmore, Co. Tyrone		174	
Block-wheel car		100	
Bodenstown, Co. Kildare		200	Inchiquin, Baron 92
Bolinready, Ballycanew		57	Iron ore mines at Ballyregan 157
Botanical Investigation	at	٠. ا	Fronworks in Ireland 160
Roachman		194	Tronworks in freignd 100
Beaghmore Boyle, Richard, Ironmaster		156	
			IZ:1.1 12- 1 - C 110 101
Bronze Age Burials		46	Kildare, Earl of 118, 121 Killogrone Mill 9
Bronze Age hoard from Gard			Killogrone Mill 9
Hill		101	Kilmackoe 157, 158
Hill Butler, Edmund	• • •	199	
		- 1	1 77 1
			la Touche 134
Careass	• • •	69	la Touche 134 le Poer, Eustace 122, 123
Cashel Cathedral		199	Llanthony Cells of Duleek and
Castlekevin		121	Colp 140ff
Carcass Cashel Cathedral Castlekevin Chiaroscuro painting	134,	137	Loftus, Sir Adam 156 Lough Gara 93 Luttrellstown Castle, Co. Dublin 134
Christian Monuments in Wa	les	204	Lough Gara 93
Cist graves	16. 49	57	Luttrellstown Castle Co Dublin 134
Cist graves Cloghinkelly	.0, 1	100	Zatticibiowii Castic, Co. Dabilii 191
Cloghinkelly Collon House, Co. Louth Coote, Sir Charles Crannog sites	•••	134	
Coata Sin Charles	156	150	MacGiollamocholmog 126-132
Coole, Sir Charles	150,	0000	
			MacMurchadha, Diarmaid 128
Cremation from Bolinready			MacMurrough, Art 125
Curraghmore, Co. Waterford	l.	134	Meagher, Thomas Francis 88
			Mocollop 158
			Monastic Estates in Meath 140ff
de Deveneys, William		122	Monasticon Hibernicum 141
de Gree, Peter de Lacy, Hugh 14		133	Morett Mill, Co. Laoighis 15
de Lacy, Hugh 140	0, 142	. 143	Mount Congreve House 137
de Ridelesford, Walter		122	Mount Kennedy House, Co.
de Stanleye, Sir John		122	Wicklow 134
Deeps, near Wexford			Wicklow 134 Mount Oriel 134
Beeps, near Wexford	•••	01	Mulso, Sir Esmond 117, 132
Thurston Taxab		190	Mural Ornamentations 133ff
Ennis, Jacob	•••	138	
Faience bead from Ballyduff	40	5.4	Neolithic Habitation site 174
Fercullen, origin of		117ff	Neolithic A ware 189
Fisheries of the River Liffey		163	
Fitzgerald, Col. Nicholas		61	01
Food Vessel from Annaghmo	re	46	Obrun 122, 124, 130 Oldcourt 118 O'Toole Brian 120 ,, Barnaby 120 Lawrence 164
, , , , Ballyduff , , , , Bolinready	• • •	49	Oldcourt 118
", ", Bolinready	7	57	O'Toole Brian 120
			" Barnaby 120
			,, Lawrence 164
Gamanrad		103	,, Phelim 120
Garden Hill hoard	•••	101	Oldcourt 118 O'Toole Brian 120 ,, Barnaby 120 ,, Lawrence 164 ,, Phelim 120 ,, Tirlagh 117, 119, 121, 123, 132
			,,,,,,,,,,,,,,,,

210 ROYAL SOCIETY OF ANTIQUARIES OF IRELAND

Pivot-stone, Ballyshannon Powerscourt 117 Praeger, Robert Lloyd 20	4 Socketed Hammers 103 ff Stone Circles at Beaghmore 174
Rathmacknee Castle, Co. Wexford 3 Rosseters of Rathmacknee 3 Roundels 13 Royal Dublin Society 13	7 Tighermas 129 Tiusley Portrait Sketches 86
St. Brigid of Kildare 9 St. Cianan 141- Saint Johnstown Head 19 St. Mary's Abbey 142, 170, 17 St. Ruth 59, 66, 67, 68, 76, 78, 8	
Salter, Dr. H. E. 14 Seafield Hall Siege of Athlone Sixteenth Century Irish People' 15 Slievenamon 10 Smith O'Brien 5	7 Wall-Paintings 133 8 Wauchope, Brigadier 62, 68, 80 0 Wingfield, Sir Richard 120 0 Woodstock, Co. Wicklow 134

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